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Marjorie Carole Donohoe

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JURORS' DECISIONS IN A SIMULATED TRIAL OF THE PMS DEFENSE:
BACKGROUND CHARACTERISTICS AND ATTITUDES TOWARD
MENSTRUATION

The Louisiana State University and Agricultural and Mechanical Col.

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JURORS' DECISIONS IN A SIMULATED TRIAL OF
THE PMS DEFENSE: BACKGROUND CHARACTERISTICS AND
ATTITUDES TOWARD MENSTRUATION

A Dissertation

Submitted to the Graduate Faculty of the
Louisiana State University and
Agricultural and Mechanical College
in partial fulfillment of the
requirements for the degree of
Doctor of Philosophy

in

The Department of Psychology

by

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ABSTRACT

This mock jury study assessed the feasibility of utilizing Premenstrual Syndrome (PMS) as a substantive defense in a capital case. One hundred-eighty mock jurors were asked to render judgments in identical cases of spouse murder with one of three defenses: (1) temporary insanity due to PMS; (2) temporary insanity with a reported history of psychiatric treatment; and (3) temporary insanity brought about by extreme emotional trauma. Results indicated that mock jurors rejected an insanity defense for the PMS defendant. Jurors were more willing to render an NGRI (Not Guilty by Reason of Insanity) verdict for the defendant with a documented history of mental illness. Conviction rates, however were similar for the PMS defendant and the defendant who employed a defense of temporary insanity brought about by extreme emotional trauma. This finding, as well as the fact that the PMS defendant received significantly shorter sentences, led to speculation that the PMS defense, while perhaps not viable as a substantive defense, may be useful in cases of diminished capacity. Responses to the PMS defense also varied as a function of more general attitudes concerning menstruation and sex of mock juror. Male jurors who believed menstruation to be psychologically and physically debilitating were more accepting of the insanity defense for the PMS defendant. Denial of the effects of menstruation was associated with higher conviction rates for female mock jurors. Longer sentences were obtained from female mock jurors who

reported that menstruation is an event that can be easily predicted or anticipated. Other background/demographic variables shown to influence jurors' decision-making were level of education, degree of religious commitment, and a history of personal experience with PMS. Finally, the results of the regression analysis revealed that factors predictive of an NGRI verdict for the PMS defendant included a higher level of education, a belief that menstruation is debilitating, and single marital status. Predictive of longer sentencing were denial of the effects of menstruation, lower occupational prestige, and below-mean age level.

INTRODUCTION

In the past two decades the proportion of serious crimes committed by women has increased significantly in this country (Monahan, 1981). This increase, as part of the larger picture of the changing female role, has contributed to a growing concern with studying the female offender and those etiological factors which may be of special relevance to crimes committed by women. As there has always been a fascination with the possibility of finding a link between biological characteristics and criminal behavior, it is not surprising that some of the attention has focused on a biological factor traditionally considered an important determinant of female behavior - the menstrual cycle. Since at least the turn of the century there have been reports of increased criminal tendencies during certain phases of the menstrual cycle, and more recently a number of researchers have empirically explored this notion. Such studies obviously have important implications for the concepts of criminal responsibility, punishment, treatment, and crime prevention.

Over 30 years ago Oleck (1953) suggested that defense attorneys and prosecutors had the duty to investigate the possible connection with premenstrual syndrome in every case in which a female was accused of a crime. He also proposed that legal principles be developed to allow premenstrual tension as an insanity defense. Oleck's suggestion apparently had little impact,

but the issue has recently been raised again by writers and researchers who have documented new studies on the link between criminal behavior and menstrual cycle phase. Concluding that the legal community should not remain indifferent to the evidence, they have explored the possible PMS defense under the current tests for determining criminal responsibility - and discussed as well the implications for diminished capacity verdicts and for the mitigation of punishment.

The receptiveness to scientific studies in the legal community is certainly much greater today than it was when Oleck first proposed the PMS defense; the increased attempts at communication across the legal and psychology disciplines are applauded from both sides. However, if scientific findings are to be profitably incorporated into legal principles, it is necessary to have thoughtful examination of all factors involved. Although the disciplines of psychology and law might agree on the applicability of PMS as a defense in criminal cases, the jurors impaneled to make judgments may hold stereotypical attitudes about menstruation and the menstruating female that could influence their decision-making.

In contrast to voluminous literature concerning the legal and psychological perspectives of the PMS defense, very little has been written on the public's perception of the defense. This is the case in spite of the public's apparent role as impetus for recent legal changes. It is important to consider the public's views because such views may affect the legitimacy of the defense

as well as verdicts in specific cases. Therefore, the principal focus of this investigation was in determining how the PMS defense is perceived relative to other, more commonly accepted, defenses. Further, it was thought that responses to the PMS defense might vary as a function of more general attitudes concerning menstruation and sex of subject. Juror characteristics involved in such a trial also appeared to be important, since who listens to and judges a case may be just as critical a determinant of the outcome of a PMS trial as victim or defendant variables. In addition, since background/demographic and case-relevant attitudinal variables have been shown in some cases to predict juror decision-making, a set of predictors was sought that would be helpful in jury selection. The following review of the pertinent literature provided a background for the rationale and aims of this investigation.

The Premenstrual Syndrome (PMS)

The term "premenstrual syndrome" was introduced by Frank (1931) to designate cyclic irritability, anxiety, and depression undergone by women at this time. Since then a variety of symptoms have been associated with this phase of the menstrual cycle. The most recent review of symptomatology (Labrum, 1983) lists the following physical changes in PMS: change in sleep patterns; worsening of sinus symptoms; irritated eyes; difficulty using contact lenses; reduction of hearing or temporary deafness; mouth

sores, ulcers and dryness; bleeding from the nose; acne; darkness under the eyes; swelling and tenderness of the breasts; breathlessness; feelings of suffocation; palpitations; rapid heartbeat; crushing chest pain; worsening of asthma symptoms; bloating of the abdomen; constipation or diarrhea; pelvic heaviness; rectal pressure; feelings of pressure in the bladder; need to pass urine more frequently, urgency; easy bruising and welting of the skin; itching and burning of the skin (especially face, hands, abdomen, genital area); hair falling out; muscle weakness, aching and cramping; pain and stiffness of joints (especially hands, knees, ankles); backache; craving for sweets, chocolate, or just more food in general, binge eating; a sense of internal shaking; swings between a feeling of being energetic and of being fatigued. Among the affective changes found in PMS a summary would include: feelings of well-being; excitement; increased sexual drive; heightened creativity; feelings of intimacy; bursts of increased energy; irritability; anger (moderate to severe); aggressive feelings and violent behavior; paranoid ideation; depression (can be severe, with suicidal ideation); tension (like a stretched wire about to snap); frequent mood changes; feelings of and fear of losing control; crying spells; feeling overstimulated and oversensitive and feeling guilty about feelings, behavior and interactions with others; obsessive-compulsive behavior (Moos, 1969; Labrum, 1983). Perceptual and cognitive changes noted include: difficulty thinking in a rational way; forgetfulness; hypersensitivity to sounds, sight and

touch; stimulus overload; impaired concentration (Labrum, 1983; Norris, 1983).

In addition, PMS may be characterized in other ways, including: adverse reaction to oral contraceptives (women with PMS usually tolerate the pill poorly); either experiencing relief from symptoms of PMS during the last two trimesters of pregnancy, or developing toxemia; extended depression after childbirth; symptoms that worsen with age (PMS is rare in adolescence, more common in the twenties, and often serious by the mid-thirties); a family history of PMS (the disorder usually runs in families, although specific symptoms may vary from sister to sister or mother to daughter) (Dalton, 1979).

The timing of symptoms in each menstrual cycle is crucial to the diagnosis of PMS, as is the consistent absence of symptoms postmenstrually (Dalton, 1977). It is important that PMS not be confused with the more common forms of menstrual distress, which are characterized by the presence of intermittent or continuous symptoms throughout the menstrual cycle, becoming worse at menstruation (Comerci, 1982). It is important to distinguish PMS from dysmenorrhea, and some discussants fail to make this distinction. The pain of prostaglandin-induced myometrial contractions and consequent ischemia may lead to inappropriate behavior in some women, but this entity is not PMS. The behavioral and psychological aspects of PMS are not responses to pain (Shangold, 1983).

Moreover, it is now generally acknowledged that PMS is not uniform but composed of a number of distinct though related symptoms, clusters or complexes - perhaps with different pathophysiologies (Abraham, 1980; Chakmakjian, 1983; Endicott, Halbreich, & Nee, 1981; Moos & Leiderman, 1978). The most common subgroup of PMS involves symptoms of anxiety, irritability, and nervous tension, sometimes expressed in behavior patterns detrimental to self, family, and society (Abraham, 1983).

The incidence of premenstrual symptoms varies from twenty-five to one hundred percent of women, depending upon how they are defined and the population studied, as well as who does the defining. The reported prevalence of PMS in otherwise normal women between 1934 and 1965 varied from 21% to 30% (Abraham, 1980). In a recent survey (1979) of 2,501 premenopausal French women between the ages of 15 and 50 years only 15% were exempt from premenstrual complaints. Of 77% of the women who had current premenstrual problems, 74% considered it normal for a woman to experience them (van Keep & Lehert, 1981). Some 40% of the respondents had experienced recurrent and significant symptoms premenstrually, suggesting that 40% of French women experienced PMS in 1979. Hargrove and Abraham (1982) reported a PMS prevalence of 50% in 1,395 gynecologic patients, with a peak of 60% in women between 30 and 40 years. Labrum (1983) reported that about 60% of healthy women experience one or more PMS symptoms. He found that about 11%

experience 11 or more symptoms each month. Calculating that if there are 50 million women in the reproductive age group in the United States, "this would represent 5-6 million women experiencing severe symptoms each month" (p. 438). Indeed, the premenstrual syndrome has been called "the most common endocrine disorder" (Dalton, 1980). It was observed that 36% of 1,500 women in one industrial plant sought sedation in the premenstrual week (Bickers & Woods, 1951); estimates suggest that absenteeism due to PMS cost a loss of 5 billion dollars in 1969 alone (Reid & Yen, 1981). In the United States alone, menstrual problems have been said to result in the loss of 140 million hours of work a year, and "it is probably the most common cause for absence of women from the work force" (Reid & Yen, 1981). Based on these estimates, it would appear that premenstrual symptoms afflict a major proportion of the female population with some degree of temporary physical and/or mental incapacitation before menses. Of them, possibly 5-10% have such severe PMS that it disrupts families and society in general (Chakmakjian, 1983).

Premenstrual syndrome has been the subject of extensive lay press coverage recently. It's been the topic of television shows such as 20/20, Today, PM Magazine, Hour Magazine, and Donahue. Articles have appeared recently in Cosmopolitan, MS., Time, McCalls, People, and newspapers such as The Chicago Sun Times, Los Angeles Times, and New York Times. PMS clinics have sprung up across the country (Wisconsin, North Carolina, Texas, Connecticut, Massachusetts,

New York, Illinois - to name just a few). Self-help books have appeared in a veritable swarm (e.g., Allen & Fortino, 1983; Budoff, 1983; Harrison, 1982; Lauersen & Stukane, 1983; Lever & Brush, 1981; Plume, 1981; Lichtendorf, 1982; Storch & Carmichael, 1981).

Shangold (1983) has stated that the recent surge in publicity on PMS has made women very aware of this entity, and "an epidemic has resulted" (p. 525).

Paralleling public interest in PMS, both psychology and medicine have increasingly recognized the syndrome as a legitimate disorder and have directed research efforts accordingly. For example, the July and August issues of The Journal of Reproductive Medicine (1983) were exclusively dedicated to a symposium on the subject with contributions by researchers on the epidemiology, pathophysiology and treatment of PMS. While there is currently no specific diagnostic term with a unique code number in DSM-III to denote premenstrual syndrome, with ever increasing research in this area, such a diagnosis might be possible in a subsequent edition (cf Hurt, Friedman, Clarkin, Corn, & Aronoff, 1982, for discussion).

Since the original description of the syndrome by Frank in 1931 numerous hypotheses have been advanced to explain PMS, but the pathogenesis remains unclear and relatively speculative (see Dennerstein & Burrows, 1979, for review). Most of the early work centered around estrogen-progesterone imbalance (Greene & Dalton, 1953), and altered suprarenal cortex activity (MacKinnon &

MacKinnon, 1956). More recently, investigators have suggested that monoamine oxidase activity might be the means through which estrogens and progesterone affect neural firing and behavior (Grant & Pryse-Davies, 1982; Klaiber, Broverman, & Vogel, 1972). Labrum (1983) has proposed an estrogen-serotonin interaction, while Abraham (1983) bases his theory of etiology on nutritional factors. To date, no one hypothesis has adequately explained the constellation of symptoms composing PMS; however, the most precise delineation has been proposed by Reid and Yen (1981). They postulate that an aberrant release, or sensitivity to neurointermediate lobe peptides alpha-MSH and Beta-endorphin during the luteal phase of the cycle may be the central event which triggers a cascade of neuroendocrine changes leading to the varied manifestations of PMS. In exceptional cases an excessive rebound to dopaminergic hyperfunction may explain the development of late premenstrual hyperactivity, irritability, aggressive or hostile behavior, or psychosis (Reid & Yen, 1981). Stated more simply, they propose that women with PMS have extra-high levels of endorphins in the brain. During the two weeks prior to the menstrual period, levels of endogenous opiates in the brain are very high - at the onset of menstruation, there is a precipitous fall in the levels of opiates, which produces a syndrome similar to a heroin addict going "cold turkey." Although the factors determining the degree and duration of endogenous opiate exposure and the rate of withdrawal are unknown, it is likely that gonadal steroids are involved. Differing levels of gonadal steroids from

month to month and person to person may account for the heterogeneous and variable clinical manifestations of PMS.

The final picture of factors involved in PMS will likely be much more complicated than a nutritional deficiency as suggested recently by Abraham (1983), or an estrogen-serotonin interaction as suggested by Labrum (1983). However, Reid and Yen's (1981) theory suggests that the higher the relative estrogen level in the luteal phase, the more pronounced the withdrawal effect when presumably estrogen-induced high levels of serotonin decline. The rate of serotonin decline is related presumably to the highest estrogen levels reached and how rapidly they fall. Moreover, since magnesium deficiency causes a specific depletion of brain dopamine without affecting brain serotonin and norepinephrine, it is likely to be a predisposing factor in PMS and may help to explain symptoms such as aggression, anxiety, and hostility as suggested by Abraham (1980; 1983). While our knowledge of the effects of nutrition on endocrine and neuroendocrine factors is expanding rapidly, at present no specific thesis can explain the constellation of symptoms in PMS. However, with the advances in radioimmune assay techniques, and a greater interest in the hypothalamic hormones and knowledge of the physiology of the prostaglandins, the exact relationship between the neuroendocrine system and PMS is likely to be discovered.

Behavioral and Psychological Correlates of PMS

Cyclical variation in mood. It is negative mood which tends to dominate accounts of changes in the premenstrual phase. There are numerous reports of increased anxiety premenstrually (Benedek & Rubinstein, 1939; Beumont, Richards, & Gelder, 1975; Golub, 1976; Ivey & Bardwick, 1968; May, 1976; Moos, 1969; Silbergeld, Brast, & Noble, 1971; Silverman, Zimmer, & Silverman, 1974). Many studies report a premenstrual upsurge in what is referred to as negative affect or mood. This is measured in various ways but usually includes anxiety, irritability, restlessness, and tension (Abplanalp, Donnelly, & Rose, 1979; Garling & Roberts, 1980; Janowsky, Berens, & Davis, 1973; KIRSTEIN, Rosenberg, & Smith, 1981; Moos, 1977; Parlee, 1980; Taylor, 1979; Voda, 1980). A methodologically sound study of 82 college women over a 40-day period found relatively positive moods at the middle (ovulatory) phase of the menstrual cycle and relatively negative moods in the week preceding menstruation and in the first day or two of bleeding (Rossi & Rossi, 1980). One study (Englander-Golden, Willis, & Dienstbier, 1977) showed a premenstrual rise in tension and found that the cyclical fluctuations in tension did not take place in men. There are reports of a premenstrual increase in feelings of aggression (Moos, 1969; Silbergeld et al., 1971) and of hostility (Ivey & Bardwick, 1968; Paige, 1971). Dan (1980) found no significant change in mood variables over the cycle, with one exception. There were higher scores in the premenstrual phase

on self-rated hostility and on hostility outward on a free-associative measure. Reports on depression in the premenstrual phase are not consistent. Some find no change (Moos, 1969); one study finds it significantly lower premenstrually than at mid-cycle (Parlee, 1980), others find an increase (Beumont et al., 1975; Golub, 1976; May, 1976; Taylor, 1979). This lack of agreement may partly reflect the fact that depression during the cycle is usually measured by questionnaires which were designed to indicate level of clinical depression and may not appropriate indicators of the more transient type of depression occurring in relation to the menstrual cycle.

Psychiatric Illness. The psychiatric literature contains scattered reports of patients with psychosis characterized by the periodic exacerbation of symptoms during the menstrual period (Altshule & Brem, 1963; Hatotani, Wakao, Yoshimoto, & Takekoshi, 1959; Maeda & Naito, 1969; Williams & Weeks, 1952; Endo, Daiguji, Assano, Yamashita, & Takahashi, 1978). Smith (1975) reviewed studies which found an exacerbation of recurrent mental disturbances of psychotic proportions in the premenstrual phase. Diamond, Rubinstein, Dunner, and Fieve (1976) found increased affective symptoms premenstrually and during menstruation in women suffering both from bipolar and unipolar affective disorders - there were significantly more reports of exacerbated affective symptoms premenstrually than menstrually. Endo and co-workers (1978) reported seven cases of patients with regularly recurring psychosis, showing certain

characteristics in common with regard to their age of onset, clinical picture, psychogenic factors, endocrine and EEG findings - with total or partial remission of symptoms independent of menses. It has also been found that admissions to hospital and outpatient contact increase in the few days before menstruation and, less often, during menstruation (Dalton, 1959; Diamond et al., 1976; Glass, Heninger, Lansky, & Talan, 1971; Jacobs & Charles, 1970; Janowsky, Gorney, & Castelnuovo-Tedesco, 1969; Kramp, 1968). One study found a marked association between onset of depressive psychiatric crises and phase of the menstrual cycle (Abramowitz, Baker, & Fleischer, 1982). These authors confirmed previous reports of significantly higher rates of admission of depressed patients in the paramenstruum. There is also an increase during the luteal/premenstrual phases in acute symptoms in patients who are already in the hospital (see Smith, 1975, for review). In explanation of this phenomenon several authors have pointed out the need for further clarification, but assume an additive model in which the usual cyclical changes in mood and physical changes are superimposed on the existing psychiatric disorder, causing a further deterioration in psychiatric state (Asso, 1983; Zola, Meyerson, Reznikoff, Thornton, & Concool, 1979).

Completed and Attempted Suicide. Many studies have shown a preponderance of suicide attempts during the last part of the cycle and/or into menstruation (Parvathi & Venkoba, 1972; Thin, 1968; Tonks, Rack, & Rose, 1968). The largest numbers of telephone calls to a suicide prevention center were reported to be in the pre-

menstrual and menstrual phases (Mandell & Mandell, 1967). One study (Birtchnell & Floyd, 1974) found that an increase in attempted suicides premenstrually and during menstruation did not reach statistical significance. Wetzel and McClure (1972) carried out a comprehensive review of studies of the relationship between suicidal behavior and the menstrual cycle since 1900. They found that most of these reports were of suicide attempts in the premenstrual and menstrual phases.

As regards completed suicide, an early study (MacKinnon, MacKinnon, & Thomson, 1959) of post-mortem reports found that of 38 suicides, 34 took place during the last half of the cycle. There is a report by a pathologist in Kenya who carried out necropsies on 22 Hindu women who died by self-immolation; 19 of the 22 were menstruating (Ribeiro, 1962). While being mindful of the methodological problems in such studies, these data are suggestive of an increased risk of completed suicide in the luteal and premenstrual phases.

Illness, Accidents and Death. Various illnesses are reported to have a more frequent onset in the premenstrual phase than at any other time in the cycle (Southam & Gonzaga, 1965). These include hepatitis, influenza, and pneumonia. There are early reports of a cyclical pattern of acute attacks of various existing illnesses (Richter, 1968). Frequently reported in early studies was a premenstrual increase in epileptic attacks (Laidlaw, 1956;

Morell, 1959). In a more recent study, Backstrom (1977) found a positive correlation between number of epileptic seizures and the mean estrogen/progesterone ratios; he found a negative correlation with progesterone levels. There is another report (Roszczewska, 1980) of a four-year investigation of 69 women with epilepsy which found that 58% had increased seizures premenstrually and 9% during menstruation. Sickness in industry, accidents, and acute hospital admissions all reach a peak just before menstruation (O'Connor, Shelley, & Stern, 1974).

There have been clinical reports of asthma and skin eruptions increasing in the premenstruum, and, to a lesser extent, during menstruation (Dalton, 1964; Southam & Gonzaga, 1965). A more recent study found that asthma worsened during just prior to or at menstruation and that there was a significant reduction in peak expiratory flow rate at that time (Hanley, 1981). There are reports of increased rhinitis premenstrually (Dalton, 1979) and of some cyclical extragenital bleeding, especially in the nose (Dunn, 1972). In a study which measured allergic response to histamine throughout the 24 hours, sensitivity rose from post-ovulation, throughout the luteal and premenstrual phase to a peak on Day 1 of the cycle, after which there was a sharp decline (Smolensky, Reinberg, Lee, & McGovern, 1974). These data are suggestive of a hormonal basis to the observed changes in allergic responses with the cycle.

There is not a great deal of information on headache separately from other pain. Headache seems to increase in the premenstrual phase (Garling & Roberts, 1980; Kessel & Coppen, 1963; Nattero, 1982). A study of migraine sufferers found that in only 14% of the 142 women surveyed was migraine related to the events of the menstrual cycle. Nevertheless, mean over-all estrogen and progesterone levels were significantly higher in migraine patients than in non-sufferers for most of the cycle. In an investigation of specifically premenstrual migraine, Nattero (1982) found that both estradiol and progesterone levels were significantly higher in migraine sufferers than in controls on Day 26 of the cycle. Nattero suggested that headache of a migraine type is associated with the neurophysiological events of the premenstrual phase. Nonetheless, the possible factors which contribute to any cyclical variation in headache cannot yet be stated with any certainty.

Mothers take their children to physicians more often in the premenstrual and menstrual phases (Dalton, 1966; Tuch, 1975). Tuch (1975) reported that not only are the numbers of children brought to the doctor increased in the paramenstruum but that children brought in at that time are less ill and had been ill for a shorter period of time than those brought in intermenstrually.

With regard to accidents, the literature contains a very early report of three flying accidents in which the women pilots were menstruating at the time (Whitehead, 1934). Since flying is a complex behavior, it would be interesting to have more recent con-

firmation of possible menstrually-related flying accidents, and, if such a relationship does exist, whether it is simply a part of the reported paramenstrual proneness to accidents in general (see O'Connor, Shelley, & Stern, 1974, for discussion). Dalton (1966) reported that in the wards of four London teaching hospitals, it was observed that 53% of admissions for females for accidents occurred during their paramenstruum. This finding has since been strengthened by the United States Center for Safety Education (Dalton, 1977) which pinpointed the forty-eight hours immediately prior to the onset of menstruation as the time when accidents are most likely to occur. Reactivity to stress may increase premenstrually and may account for proneness to accidents, although this requires confirmation. One study, using the objective method of measuring levels of cortisol, found a premenstrual increase (Marinari, Leshner, & Doyle, 1976). The women were asked to report their reactions to the experimentally-induced stress, and no cyclical variations were found in these reports. So that although most of the women were not subjectively aware of experiencing more stress premenstrually, the physiological measure of their stress level increased at that time. Another investigation (Wilcoxon, Schrader, & Sherif, 1976) used a stress inventory which included stressful events related to life activities, rather than to experimental stress, found premenstrual and menstrual increases in reported stress. A group of men reported no cyclical variation in stress. One study found

no cyclical variation in physiological responsiveness to stress, i.e., in cortisol levels (Abplanalp, Livingston, Rose, & Sandwisch, 1977).

As regards patterns of death with the cycle, some information is provided by the study mentioned previously of coroner's post-mortem reports of the wombs of 102 women age 18 to 46 who died of various causes (MacKinnon, MacKinnon, & Thomson, 1959). Thirteen of the 102 deaths occurred in the first half of the cycle, 89 during the last half. Of these 89 deaths, 60 were during Days 17 to 23, and 29 were during the last 7 days before menstruation.

These observations on illness, accidents, and death, although they require some detailed verification, suggest that there are certain fluctuations which are related to the menstrual cycle. The causal factors in these fluctuations have yet to be determined.

Test Performance. The notion that increased depression and anxiety associated with certain phases of the menstrual cycle could impair cognitive performance has been the subject of considerable interest by menstrual cycle researchers. A large variety of functions, ranging from simple perceptual judgments to critical thinking, have been studied in relation to the menstrual cycle. The results are equivocal. A comprehensive review of studies of cognitive and perceptual motor behavior with the menstrual cycle reported that no cyclical fluctuations were found in

the large majority of studies using objective performance measures (Sommer, 1973). The exceptions were one study of vibrotactile learning (Diespecker & Kolokotronis, 1971) and two studies of school examinations (Dalton, 1960; 1968). After Sommer's review there were three reports of some premenstrual impairment on simple perceptual motor tests: perception of verticality (Klaiber, Broverman, Vogel, & Kobayashi, 1974); arm-hand steadiness (Zimmerman & Parlee, 1973); perceptual after-effects (Satinder & Mastronardi, 1974). In addition, an increased (damping-down) kinaesthetic after-effect which is said to reflect a central effect on the perception of subjective stimulus intensity and is possibly related to personality, has been found in the paramenstruum - a variation not found in males (Baker, Kostin, Mishara, & Parker, 1979). Self-reported difficulties in concentration appear to be higher during the premenstrual and/or menstrual phases (Garling & Roberts, 1980); Golub, 1976; Kirstein, Rosenberg, & Smith, 1981; Moos, 1969). In summary, with regards to test performance, here, as in other areas, one sees a lack of detailed information about the precise effects of the cycle on performance on all aspects of perceptual motor and more complex cognitive tasks, as well as individual differences in these effects.

Alcohol. Since dysphoria and anxiety are reported to be associated with alcohol use, and also with premenstrual tension and menstruation, it is logical to speculate that

menstrual cycle changes may be related to patterns of alcohol use in women. Podolsky (1963) was one of the first to explicitly state this hypothesis. He found that patients suffering from severe premenstrual tension deliberately used alcohol to decrease or modulate the unpleasant symptoms associated with the premenstruum. Belfer and Shader (1976) confirmed the clinical impression that alcohol use is related to menstrual tension in a study of female alcoholics. The general observation that alcohol may sometimes increase rather than reduce anxiety levels was shown in one study to apply to women in the luteal phase of the cycle whereas the effect was not found in the follicular phase (Logue, Linnoila, Wallman, & Erwin, 1981). It has been suggested that the cyclical variations in alcohol metabolism may be related to estrogen levels (Jones & Jones, 1976) but this observation requires further demonstration. Another study which found no differences between normally cycling women and women taking contraceptives suggested that such effects may be related only indirectly to underlying hormonal changes observed during the cycle (Dumas, Calliet, Tumblin, & King, 1984). Abraham (1983) has suggested that alcohol may play a role in the reactive hypoglycemia often seen in PMS. Alcohol inhibits gluconeogenesis and promotes a distinct fall in plasma glucose. Effective treatment of PMS, therefore, would also have a favorable influence on the drinking habits of alcoholic women. Since it is estimated that there are 2 million alcoholic women

in the reproductive age group in the United States (Danis, Newton, & Keith, 1981), empirical studies are needed of the temporal concordance between drinking, mood, and neuroendocrine changes associated with menstruation in female alcoholics and problem drinkers.

Aggressive and Antisocial Behavior. Approximately 9 of every 10 persons arrested for a violent crime in the United States are male (Monahan, 1981) and this ratio has been amazingly consistent since such statistics were first recorded. While there has been a substantial increase in female violent crime in recent years, it has been matched by an equally substantial increase in male violent crime. Since most of the recent research on the habitually violent offender has focused on males alone, it is difficult to analyze patterns of female criminality. Maccoby and Jacklin's (1974) review of sex-linked behavior found that the fact that males are more aggressive than females was one of the few sex differences to be well established by empirical research. A review of laboratory research on aggression by Frodi, Macauley and Thorne (1977) concluded that sex differences in aggression are not as prevalent as commonly believed and that women may be as aggressive as men under certain conditions, such as when the aggressive act is perceived as justified. When women do commit violent crime it is likely to be personal in nature; the most common homicide committed by women is spouse murder (Benedek & Farley, 1982).

When turning to the literature addressing the etiology of female violence, one is immediately struck by the regrettable lack of data. Benedek and Farley (1982) have noted that the knowledge of the character and cause of female criminality is at the same state of development that characterized the knowledge of male criminality some 30 or more years ago. Overall, themes of an organic or physiologic nature or notions focusing on social roles or on psychodynamic explanations predominate (Klein, 1973; Simon, 1975; Solomon, 1970; Totman, 1971).

A first attempt to provide a biological explanation of criminality occurred at the turn of the century when Lombroso (1958) constructed a developmental hierarchy of "superiority" involving racial and sexual variables. Lombroso felt that this hierarchy ranged from the most highly developed (white males) to the most primitive (nonwhite females). He explained all crime as a result of inborn traits reflecting primitiveness of development. He postulated that women and savages shared many of these traits because of their primitiveness of development. Noting that women were deficient in "moral sense," he proceeded to explain women's lesser involvement in criminal behavior as the result of lower intelligence.

While Lombroso's somatic theory of criminality was eventually discredited, other theoreticians also focused on the biological explanation of female crime. Freud (1933) postulated that women possessing deficient superegos were lacking in a sense of justice

and had less impulse control. It was implied that women were somewhat more inclined toward amorality because of anatomical differences. Rather than making a "healthy adjustment" as regards penis envy, females overidentified with maleness and involved themselves in a variety of phallic activities, presumably including criminal behavior. Pollak (1950) extended Freud's notions to conclude that a major facet of criminality in women began with their natural "deceitfulness."

In general, more recent research studies provide evidence implicating brain mechanisms in the initiation, modulation, inhibition, and control of aggressive behavior. In the area of brain dysfunction, most of the specific literature addresses the clinical experimental evidence correlating epilepsy, epileptoid behavior, and violence. Mark and Ervin (1970) described a discrete clinical entity called the dyscontrol syndrome. This syndrome is characterized by four indexes: (1) senseless brutality; (2) pathological intoxication (a clinical phenomenon in which a relatively small amount of alcohol releases uncontrolled behavior); (3) sexual assault; and (4) multiple serious automobile accidents. This particular syndrome has been associated with focal brain disease of the temporal area. In their study of women prisoners, Climent and co-workers (1973) reported a disproportionately high incidence of medical disorders as well as the dyscontrol syndrome among violent women. They noted an especially

high prevalence of gynecological disorders, head injuries, headaches, and seizure disorders.

Another aspect of the physiologically based research literature suggested as bearing on female violence addresses the issues of chromosome variance. The role of Klinefelter's syndrome, a genetic anomaly consisting of an XXY chromosome pattern, is discussed by the APA Task Force on Clinical Aspects of the Violent Individual (APA, 1974). This syndrome is thought to be related to aggressiveness and violence in certain institutional populations. A statistically less frequent anomaly, that of the XYY pattern, or supermale syndrome, has led some researchers (Kessler & Muse, 1970) to consider the possibility that the extra male chromosome may cause "super-masculine" behavior, increased aggressiveness, and violence in women. In general, however, there is insufficient evidence to make possible the valid prediction of aggressive or violent behavior on the basis of genetic information.

With specific regard to the menstrual cycle, the animal work that is available supports the notion of biologically determined mood and behavioral changes with the cycle. For example, records have been kept of monkeys and apes showing systematic "mood" and behavioral changes associated with the reproductive cycle (Janiger, Riffenburgh, & Kersh, 1972). One study found a relationship between aggressive behavior and menstrual cycle stage in rhesus monkeys (Mallow, 1981). The author points out that although phase of the cycle and behavior were clearly associated, some social

influence was not ruled out. Saayman (1971) has noted that female chacma baboons show consistent cycles, tending to attack other group members more frequently during the perimenstrual phase than at midcycle. Obviously there are dangers of generalizing from animal work to the complexities of human behavior. Nevertheless, the fact that "mood" and behavior changes are observed in close association with the cycle in the higher mammals strengthens the case for such elements being inherent in the human cycle. Moreover, several authors have hypothesized that PMS may have survival value. Sociobiologists Gorney, Janowky, and Kelley (1966) suggest that menstrual avoidances may have served to protect vulnerable early communities from wasting a possible pregnancy due to a male mating with a temporarily infertile female. Morris and Keverne (1974) have postulated that premenstrual hostility toward the male may serve a survival function. They believe such rejections could become cumulative in the infertile pair, promoting dissolution of the relationship, and allowing for a new, fertile pair-bond to be formed with subsequent offspring, and thus greater survival value for the population. They point toward PMS as a possible factor in the increased rate of marital breakdown. This assertion would have profound implications for our present society where less frequent pregnancy because of contraception has resulted in women spending a greater proportion of time menstruating than did their ancestors.

Accounts of the menstrual cycle and its effects frequently report variations with the cycle in deviant behavior in women. In essence, these accounts report a higher incidence of crime just before and during menstruation, than in the rest of the cycle. One of the earliest reports came from criminologists in the 1800's who reported that, of 80 women arrested for "resistance to public officials," 71 were menstruating (Lombroso & Ferrero, 1894). Icard (1890) reported a study that indicated of 56 shoplifters, 35 were menstruating at the time of their offense. Cooke (1945) reported that 84% of female crimes of violence occurred during the premenstrual and early menstrual phases of the cycle. Morton and colleagues (1953) reported that 62% of violent crimes committed by women took place during the premenstrual week, 19% during midcycle, and 17% during menstruation. Dalton (1964) reported that, among women inmates, 70% of disorderly acts took place during the paramenstruum. In an earlier study she reported that of 156 women convicted for theft, soliciting, and drunkenness, 49% of their crimes were committed in the paramenstruum (Dalton, 1961).

While these earlier studies have been criticized with regard to methodological defects (see Parlee, 1973, for review), more recent studies of a controlled nature have reported a similar association between phase of the cycle and criminal acts, particularly those involving aggressive behavior. A clinical report of increased child abuse (Dalton, 1975) just before and during menstruation requires further

systematic verification. Dalton (1980) reported that three women successfully pleaded diminished responsibility or mitigation due to premenstrual syndrome in crimes of manslaughter, arson, and assault. All had long histories of repeated misdemeanors, which continued while in prison. Systematic evaluation of crime records revealed that all such acts occurred during the premenstruum. In a more rigorous investigation of violent crime and the menstrual cycle it was reported that of 50 women charged with crimes of violence, 44% committed their offense during the paramenstruum and there was a significant lack of offenses during the ovulatory and post-ovulatory phases of the cycle (d'Orban & Dalton, 1980). In the best study to date on aggression and menstruation, Ellis and Austin (1971) followed 45 prison inmates through three complete menstrual cycles. During this time, prison officials recorded for the study 174 aggressive acts, about one-third being physical attacks and the rest verbal abuse. Both physical and verbal attacks were concentrated at greater-than-expected levels in the premenstrual and menstrual days, and these were also the days of highest feelings of irritability, according to inmates' self-reports. These authors suggest that those women whose past behavior justifies a label of "menstrual aggressiveness" be put into seclusion during the paramenstruum, or in other accommodations requiring little interpersonal contact with others. In a similar study, Hands, Herbert, and Tennent (1974) studied 23 women who had been housed at least six months in a secure hospital

ward for patients with dangerous, violent, or criminal propensities. If patients became particularly disturbed, and especially if they started "acting out," then it was the practice to confine them to their rooms. Records were kept of these confinements and also of menstrual dates, and a comparison of these data showed significantly more confinements in the week before menstruation than would be expected by chance.

It is important to remember that none of these studies demonstrates a tendency for each and every woman to commit either serious or trivial crimes in the premenstrual and menstrual phases. The persistent reports of aggressive and antisocial behavior with the cycle are nevertheless telling and cannot be ignored. The origins of the cyclic fluctuations are as yet unknown, but, as with psychiatric symptoms and suicide, the best assumption seems to be that the increases in tension, irritability and aggressive behavior which are widely observed before menstruation are compounded with a predisposed state. In addition, we must assume a multiplicity of factors operating in various combinations for such cyclic changes.

In general, there is evidence of some of the relationships between the endocrine system, the central and autonomic nervous systems, and feelings and behavior. Beach (1975) has pointed out that, once correlations have been reliably established, the next step is to identify the mediating mechanisms in order to understand how the behavioral consequences of hormones are brought about.

In the present state of knowledge of PMS it is not always possible to spell out specific routes but there is abundant evidence of close and powerful relationships. It will be of most interest to know how the peptides, particularly the endorphins, may affect the manifestations of the cycle. The manner in which peptides may participate in the modulation or integration of mood, behavior and the varied manifestations of the premenstruum has been previously discussed (Reid & Yen, 1981). The more specific possibility of a relationship between changes in levels of endorphins and premenstrual dysphoric and behavioral changes is discussed by Halbreich and Endicott (1981). It is clear, however, that a variety of factors are operating in combination to produce PMS. These factors would probably include, in addition to hormonal changes of the menstrual cycle, the influence of other biological cycles and psychological and social factors as well.

Real progress in this area will depend on large longitudinal studies which examine a wide range of variables. It will also depend on further clarification of the different types of changes which actually take place. The present categories such as negative affect, premenstrual tension, premenstrual dysphoria, need closer definition. Magnitude of change should be taken more into account since some studies do not make a distinction between women diagnosed as having PMS and menstruating females in general. Also important would be information on how, for any individual, each part of a cycle is related to every other part of it; whether there

are individual patterns of change throughout the cycle with, say, the level of change mid-cycle being systematically related to level of change premenstrually.

Lastly, the focus of research on the menstrual cycle is almost always on negative changes and characteristics, as Koeske (1980) has pointed out. That is, bleeding has a negative connotation - seeming to signify injury and illness. Indeed, menstruation is almost universally perceived in negative terms and to be in need of control by means of various rituals and taboos (Delaney et al., 1976; Snow & Johnson, 1977; Weideger, 1976). Thus, because of the connotative meaning of menstruation, it could be seen as influencing or causing negative but not positive symptoms. The importance of attitudes to the experience of physical, psychological, and behavioral changes in general has been increasingly recognized. The next section will explore the historical context of negative societal attitudes to the menstrual cycle; discuss the effects of such attitudes; and present evidence of current attitudes toward menstruation and the menstruating female.

MENSTRUAL ATTITUDES

Throughout history men have reacted to menstruation with a mixture of awe, pity, disgust and fear. There is a large literature on menstrual taboo and these taboos have become the most inviolate in many societies (cf. Delaney et al., 1976; Lederer, 1968; Montgomery, 1974; Paige, 1977; Weideger, 1976; Young & Bacdayan, 1965). All sorts of myths and false beliefs about menstruation existed because primitive man simply could not understand that month after month women lost blood and neither illness nor death followed. The fact that it occurred only in women made it more mystifying. Nothing comparable happened to men. Consequently, many supernatural and mysterious qualities were attached to it, and during their menstrual periods women have been banished to menstrual huts, have been prohibited from cooking for men, and have been shunned sexually (Delaney et al., 1976). In some societies it was believed that the menstruating woman was a danger to the entire community because she would cause the food supply to deteriorate. It was thought that the touch of a menstruating woman would kill plants, make wine or milk turn sour, and contaminate water (Weideger, 1976). A very prevalent belief, still held in some societies, is that menstruating woman is of special danger to men (Lederer, 1968).

Such ignorance and misinformation have generated attitudes that have been and are damaging to the position and role of women in both primitive and advanced societies. Many of these primitive

taboos have lingered on persistently in the form of prejudices and social habits. Women in the 20's widely believed that a permanent wave would not take if they were menstruating. And most of us still consider it unlucky to walk under ladders, a superstition derived from the primitive world, where people would not pass under bridges, clotheslines, trees, or the like if a menstruating woman was about, lest some of the blood or its mana fall on their heads (Delaney et al., 1976). In some parts of the rural United States today, a menstruating woman is not allowed to touch cut flowers, else they wilt; if she touches pickled meat, jelly, or pickles, they will be spoiled (Weideger, 1976). By the same token, in the south of France, she may not go near newly fermenting wine, flowers that are made into perfume, or milk for cheese (Weideger, 1976). Religions have reinforced such fears, particularly with regard to sexual intercourse during menstruation (Kessler, 1976). In an analysis of reproductive sex taboos, Paige (1977) found that the majority of Americans adhere to a menstrual sex taboo.

It is true that the reactions of individuals to menstruation cannot be separated from cultural attitudes specific to the individual's social context or from attitudes of the majority culture. Menstruation is not simply a biological event - it is a cultural and social phenomenon. Both men and women have strong feelings and ingrained attitudes toward menstruation that color their

perceptions of menstrual "symptoms." However, while many psychologists and other mental health professionals have pointed out that attitudes toward such functions are important to mental health, there has been little effort to classify and objectively evaluate attitudes of both sexes toward menstruation. The first major effort to assess such attitudes produced some surprising results. In May of 1981, the Tampax Corporation conducted over one thousand interviews, nationwide, of both men and women. A summary of some of the highlights of the survey include:

89% of men and 85% of women agree that women are more emotional during menstruation.

51% of men and 47% of women agree that women have a different scent while menstruating.

Two-thirds believe that women should conceal that they are menstruating at work (65%) and in social situations (68%). More than a third (36%) believe that women should make a concerted effort at home to conceal that they are menstruating.

27% believe that women look different while menstruating.

51% of men and 56% of women agree that women should not have sexual intercourse while menstruating.

20% of men and 24% of women agree that menstrual pain is psychological rather than physical.

81% of women say that they can function as well at work while menstruating, while only 66% of men believe this about women.

In sum, a substantial proportion of respondents believe that women cannot function normally while menstruating. In addition, while only 8% believe that women should make an effort to stay

away from other people while they are menstruating, this figure represents 14 million people. Four percent, or approximately 7 million Americans, feel strongly that women should try to stay away from other people while menstruating (Tampax Report, 1981). The vast majority feel that menstruation is not something which is acceptable to talk about.

A recent survey of college-aged men and women found that a surprising number still adhere to the old myths about menstruation (Donohoe, 1983). For example, 53% believe that it is harmful for women to bathe or swim during menstruation; 49% agree that women have a different scent when menstruating; 71% believe that it is unwise for a young woman to use tampons before experiencing sexual intercourse. An overwhelming majority (91%) agree that women look different when menstruating. Nearly half agree that women should make an effort to stay away from other people when menstruating, and 49% agree that menstruation affects a woman's ability to function as well at work.

While such results reveal that many of the old myths about menstruation have lived on in the public imagination, and that attitudes toward menstruation are largely negative and restrictive, they do not reveal the extent to which such attitudes actually exacerbate the physical changes that occur in women during the premenstrual period, or the extent to which the beliefs underlying the taboos actually cause these problems. Studies which take reports of changes in the experience of menstruation and relate

those changes to attitudes to, or awareness of, the menstrual cycle, are few. A study which compared the incidence of menstrual symptoms in Spanish students with a British group found that, in spite of greater inhibitions towards sex and menstruation in the Spanish women, the incidence of premenstrual symptoms was entirely comparable in two groups (Theano, 1968). Another study found just a slight difference in attitudes between women complaining mainly of premenstrual, as opposed to menstrual distress; the group with premenstrual complaints was deemed to be less traditional than the menstrual distress group (May, 1976). This author concluded that the negative response to menstruation stemmed from the tendency, rooted in centuries of tradition, to think of menstruation as both "dirty and dangerous."

A study of American student nurses suggested that high scores on an index of premenstrual tension, pain with menstruation, and with ovulation, and either absence of or excess flow, were related to an "unwholesome" menstrual attitude and to certain psychiatric and personality problems (Levitt & Lubin, 1967). One report suggests that women from different religious groups in American experience some of the menstrual changes slightly differently. It was found that religious attitudes were related to experience of menstrual distress in Catholic and Jewish women (Paige, 1973). Catholic women especially reported more anxiety premenstrually and orthodox Jewish women more likely to have menstrual problems. Religious beliefs would also be expected to

influence some cyclical fluctuations, such as sexual behavior, more than others. Various cultures, however, reveal similar cyclic changes. A large cross-cultural survey by the World Health Organization (1981) found that across cultures both physical discomfort and mood changes prior to or during menstruation were widely reported.

Brooks-Gunn and Ruble (1980) developed a Menstrual Attitude Questionnaire in order to explore, in some detail, attitudes toward menstruation. They found that attitudes were complex; that menstruation is sometimes seen as a positive as well as a negative event; that over 60% of women consider it as a bother although natural; most women, without denying its effects, accepted it rather routinely. Men reported menstruation as more "debilitating" and "painful" than did women. As regards the relationship between attitudes and cycle changes, those attitudes about debilitation and prediction were related to premenstrual and menstrual symptoms; this was not the case for naturalness and bothersomeness.

Another study examined how a woman is evaluated when she attributes an instance of negative social behavior to the approach or onset of menstruation. College men and women were asked to imagine an interaction in which a woman behaves very irritably and then gives one of several excuses for her negative behavior, two of which were menstrual related. Subjects who perceived menstruation as debilitating were less annoyed with the woman who

used the menstrual excuse, while subjects who denied the effects of menstruation were more annoyed, and blamed the woman more (Ruble, Boggiona, & Brooks-Gunn, 1982).

While attitudes toward menstruation as a function may be related to a number of measurable personality traits, this supposition has not been investigated. One report indicates that those more likely to perceive menstruation as restrictive fell into certain demographic groups (Tampax Report, 1981). Americans who favor equal rights and opportunities for women, for example, are much less likely to perceive menstruation as restrictive than those who do not favor equal rights. Demographic groups who are most likely to perceive menstruation as restrictive also include: the least educated, the least affluent; blue-collar workers as compared with professional and white-collar workers; those most committed to religion; political conservatives; and those who disapprove of sex education being taught in the schools.

Conclusions about the extent to which attitudes determine actual experience of the cycle must await more comprehensive studies. The rather hazy picture which at present emerges is that some aspects of physical change are probably more related to feelings about the cycle than others. Where there are indications of some relationship between attitudes and cyclical change, it is not clear if it is a causal relationship, nor is there any way of knowing the direction of causality. More importantly, while social attitudes may influence the way in which the menstrual

cycle is actually experienced in women, we do not know the global influence of such attitudes toward menstruation, since no one has yet addressed the question of how expectations about menstrual cycle fluctuations fit into the larger social pattern. That is, what role do they play in the fabric of society with respect to interpersonal relationships as well as the interrelations of persons and institutions? In short, what role if any, do negative menstrual attitudes have in preserving the status quo?

PMS AS A LEGAL DEFENSE

In the past few years PMS has become a subject of interest in legal circles, primarily in regard to questions of mental responsibility. One of the first discussions to appear (Oleck, 1953) suggested that premenstrual tension with its periodic hypoglycemia was analogous to temporary insanity or incompetence. Oleck concluded that the disability should be legally effective in both criminal and civil cases (although he did not show exactly how) and that since "remenstrual tension is a settled scientific fact," the law is bound to accept and deal with it as "it must deal with the phenomena of insanity or gravity" (p. 499).

Another article attempting to link tort liability with the premenstrual syndrome appeared in a legal journal. Stewart (1957) notes a 1943 case, *Edwards v. Ford* (1943), in which testimony to

the effect that an automobile driver became unconscious without warning during her menstrual period authorized a verdict for the defendant (p. 29). More recently, the legal literature proposed that the medical evidence demonstrates that PMS is a physical and psychological dysfunction in and of itself, and therefore should be afforded legal and medical significance equal to the more familiar disorders (Wallach & Rubin, 1971). In their lengthy essay, these authors analyze medical data and legal precedent in order to establish PMS as a plea for "diminished capacity," meaning that the defendant did not at the time of the crime have a specific criminal intent. They also suggest that PMS would be useful in plea bargaining. They base their argument on a number of complex issues and past rulings. One of their strongest points is that the chromosomal imbalance known as the XYY syndrome, a genetic defect in men, has been successfully used as a defense; yet PMS, which they define as an organic disorder, has been largely ignored in legal writings.

For nearly a decade nothing further appeared in the legal literature regarding PMS. It was not until talk of PMS began to seep into the more public domain that further discussion was advanced concerning its applicability as a legal defense. In particular, the attention gained by the case of three United Kingdom women shed light on the use of PMS as a defense in the United States. In separate criminal actions, the three women successfully pleaded diminished responsibility or mitigating circumstances by establishing that they suffered from PMS.

Carefully recorded medical information illustrated that each defendant was premenstrual at the time of the criminal act (Dalton, 1980).

The use of PMS as a basis for a diminished capacity defense in England, and increased research and awareness of the syndrome in the medical community, has sparked debate in the United States legal community concerning the admissibility of evidence to provide a PMS defense (Caryl-Thomas, 1982; Henig, 1982; Press, 1983; Taylor & Dalton, 1983; Tybor, 1982). These authors have proposed that a defendant might seek to prove that she suffered from PMS either to establish a complete insanity defense or to establish defense of diminished capacity.

Diminished Capacity. This defense applies when a crime requires a specific state of mind; to prove diminished capacity, the defendant must establish that she was incapable of forming the specific state of mind. In contrast to a successful insanity defense, however, the diminished capacity defense does not completely exculpate the defendant; she is convicted, but for a lesser offense. The classic use of the defense of diminished capacity is in murder cases. To obtain a conviction for first degree murder, the prosecution must establish that the defendant coolly and calmly planned the crime before acting. A defendant relying on a diminished capacity defense seeks to establish that she was incapable of such premeditation and deliberation because of a mental defect. If the defendant successfully establishes

diminished capacity, she will be convicted of the lesser offense of second degree murder. Expert testimony that the defendant suffered from PMS and thus could not form the requisite state of mind would certainly be relevant.

As regards "expert testimony" Press (1983) has stated that applying the Frye standard to PMS cases is logically sound. The Frye standard requires "general acceptance" before novel scientific evidence may be admitted. It is a more conservative evidentiary standard than the McCormick approach, which states that any disagreement within the scientific community concerning the reliability of the new technique or principle would go to the weight of the evidence, and would not affect its admissibility (Weinstein & Berger, 1981). Therefore, although a court following Frye may admit expert testimony concerning PMS, the defendant will be more likely to have such testimony admitted in a jurisdiction that follows McCormick's approach (Press, 1983).

However, Frye has recently been applied to novel scientific evidence not involving the more usual measurement of physical data (e.g., polygraphs, voice spectrographs, and other mechanical devices or instruments). For example, courts have evaluated the admissibility of expert testimony on battered wife syndrome (BWS) by applying the Frye "general acceptance" standard (Walker, 1982). As with PMS, the evidence for BWS confronts a court with novel scientific evidence that does not involve the use of mechanical aids. The expert decides whether a particular individual suffers

from BWS by evaluating the woman's history of battering in light of what past studies have identified as instances of BWS. Many courts, in deciding whether or not to allow testimony concerning BWS, have applied what is in effect the "general acceptance" standard of Frye (Walker, 1982). It seems logical that the same "general acceptance" standard with regard to expert testimony would apply in the case of a woman defendant suffering from PMS, since it is now an area sufficiently developed to permit an expert to assert a reasonable opinion. The Frye test appears, therefore, to be well suited to the issue of whether a court should admit expert testimony on PMS.

In applying the Frye standard (defining the scientific community) the court must decide whether the defendant must show that the cause of PMS as well as its potential manifestations in an individual have been generally accepted. The important legal issue here is whether there is "general acceptance" among experts that PMS can impair mental function to a degree sufficient to negate the specific state of mind required for certain crimes. Press (1983), after studying the available evidence, concluded that to require a defendant to establish that there is general acceptance of the cause of PMS would be unfairly burdensome. For purposes of the Frye standard, a court should require only that a proponent of expert testimony on PMS establish the "general acceptance" of the scope and severity of the potential symptoms, and not the underlying cause of PMS (Press, 1983). Since there is

an increasing number of physicians, clinical psychologists, and other interested scientists, who, either in person or through their published writings, could provide a court with a diverse pool of experts on PMS, it appears that this requirement could be easily met. Moreover, to answer the claim that PMS can impair mental function in a legal sense the court may rely on more than in-court testimony of experts. In the past, courts have relied heavily on the scientific writings of experts concerning the novel scientific evidence (Press, 1983).

PMS and the Insanity Defense. Our society has decided that individuals should not be held accountable for acts performed when they are mentally incapacitated. As reviewed earlier, there is evidence that PMS may produce (in severe cases) psychotic behavior in females (Altshule & Brem, 1963; Endo et al., 1978; Hatotani et al., 1959; Maeda & Naito, 1969; Smith, 1975; Williams & Weeks, 1952). In recent years the courts of Great Britain and Canada have considered automatism and uncontrolled, impulsive behavior resulting from emotional shock, epilepsy, or diabetic hypoglycemia as defenses in criminal cases (Taylor & Dalton, 1983). A recent American decision recognizing the automatism defense was People v. Grant (1978). Based in part on these decisions and on an increasingly large body of medical research, commentators have suggested recognition of criminal defenses based on psychological dysfunction resulting from episodic physical conditions (Feldman, 1981). These commentators point out that an individual suffering

an episodic illness with psychological complications, during an attack of the condition, may be no more responsible for his behavior than the defendant who is "insane" under the traditional tests. Thus, they suggest the creation of variants of the insanity defense, of the impulsive or automatic act defense, or of the doctrine of diminished capacity to deal with such persons. However, it has been pointed out (Press, 1983) that with regard to PMS and legal insanity, much will depend upon the standard of insanity used in a particular jurisdiction.

There are three standards recognized by American jurisdictions: M'Naughton Rule, the Model Penal Code, and the Durham or "product" rule (Steadman & Braff, 1983). Taylor and Dalton (1983) in reviewing the M'Naughton rule, conclude that because it takes the position that insanity is a cognitive rather than a behavioral disorder: the concern of the criminal justice system is not with the defendant's ability to control her conduct, but rather with her ability to appreciate its significance. PMS does not seem to affect a woman's ability to appreciate the "nature and quality" of criminal conduct, or to understand whether it is right or wrong. Rather, the ability to control one's behavior is affected. They concluded, as did Press (1983), that PMS would not constitute grounds for an insanity defense under the M'Naughton rule.

However, when applying the Model Penal Code approach, a woman suffering from PMS would satisfy the standard of an accused who "lacks substantial capacity to conform her conduct

to the requirements of the law" (Robinson, 1980). This is similar to the "irresistible impulse" test, which is usually defined as an impulse which the individual is unable to resist due to mental disease or defect and which forms the base of a plea of temporary insanity (Robinson, 1980).

The Durham rule under which an "accused is not criminally responsible if his unlawful act was the product of mental disease or mental defect" (Durham v. United States, 1954), is not often used in the courts (Steadman & Braff, 1983). However, a severe PMS sufferer could be found "insane" under the Durham rule. In summary, then, the PMS defense is arguably viable under the substantial capacity standard of insanity in accordance with the Model Penal Code and Durham standards.

As the phenomenon of PMS has become increasingly documented and accepted by medical science, the criminal justice system has been required to face the issue and to accommodate its reality. So far, there has been only one case in the United States in which a lawyer has cited PMS (People v. Santos, 1984; Tell, 1984). The case involved a motion to dismiss assault charges against a woman accused of abusing her 4 year-old daughter. In an opinion from the bench the judge said, "since eruptions of the mind are admissible on the criminal intent issue, should not proof of physiological eruptions of the body likewise be admitted?" (Tell, 1984). Eventually, however, the woman pleaded guilty to a reduced charge of harassment, and her PMS was never medically confirmed.

Given the predominance of premenstrual syndrome in the population at large, it is only a matter of time before a woman, somewhere, sometime, finds herself swept up in an incident that she didn't plan, didn't intend, would not have conceived of doing, outside of a premenstrual episode. When that happens, the American judicial system will be confronted with the PMS defense. Until an actual courtroom drama unfolds, we can only speculate about the issues and responses.

Some information is available from a 1982 survey by a popular women's magazine, Glamour, which asked its readers what they thought about PMS as a legal defense. Out of 600 women respondents, 71 percent said they did not believe that courts should accept PMS as a medical condition that produces violent behavior in women. Most of the no-sayers indicated that there is currently insufficient medical evidence to prove that PMS causes violent behavior. Some 11 percent were concerned that women and lawyers would abuse the principle (Glamour, 1982). In the absence of other identifying information concerning these respondents, and due to sampling inadequacies, it is difficult to gauge whether or not similar behavior would be repeated in a court of law and/or given weight in the jury's decision-making process.

JURY SELECTION AND RELATED PSYCHOLEGAL RESEARCH

There is a growing interest in the possibility that the participation of social scientists in the jury selection process can increase the likelihood of obtaining a jury that is attitudinally unbiased and open-minded, at minimum, or even somewhat biased toward one of the litigants. Referred to as systematic jury selection (Kairys, Schulman, & Harring, 1975) or scientific jury selection (Saks, 1976), the techniques of social science are actually employed not to select the most unbiased jurors but to exclude from the jury those persons who are least likely to render a fair and impartial verdict (Suggs & Sales, 1978) since the law only allows attorneys to reject potential jurors, not to select them. Despite the misnomer, systematic jury selection has received considerable attention inasmuch as it suggests that rigorous and standardized scientific procedures may be more effective than the individualistic and intuitive judgments made by an attorney during voir dire.

Many practicing attorneys have acknowledged that numerous trials are won or lost even before the first piece of evidence is presented to the jury (D'Agostino & Brown, 1975). Who is sitting on the jury has been recognized as one of the most important determinants of the outcome of a trial. The importance of jury composition is amply illustrated by the following anecdote:

An English barrister advised an American lawyer that a trial in England begins when the jury is

accepted by counsel and sworn to try the case.
The American lawyer replied, "Hell, in the U.S.
the trial is all over by that time!"

(Arkins, 1964, p. 689)

Methodological techniques to select an attitudinally unbiased jury during voir dire have been detailed (Berman & Sales, 1977; McConahay, Mullin, & Frederick, 1977). Generally stated, the most well known procedure requires a survey of the general population to discover those demographic and other public information variables about which information can be obtained during voir dire that most accurately predict case-relevant attitudes that cannot be ascertained otherwise during voir dire. This technique assumes that the attitudes, opinions, and beliefs of prospective jurors can be predicted with known levels of confidence, thus enabling the prosecution or defense to reject as jurors those persons whose attitudes are least favorably predisposed to their side of the issues in the case. The likelihood of obtaining the desired verdict can then be increased by retaining those jurors whose demographic and background characteristics "predict" the type of favorable attitudes that will predispose them toward a particular verdict.

At present, there is no uniform set of predictor variables that can be applied universally. For example, Simon (1967) reports that mock trial verdict is related to juror's ethnicity and education but unrelated to sex, age, religion, occupation, or income of juror. Yet Bronson's (1970) analysis of "death-qualified" jurors finds that those most in favor of the death

penalty are white, male, higher income, lower education, and Republican jurors. Others have found the following with regard to background characteristics of jurors: demographic variables, such as previous service on a jury (Reed, 1965), level of education (Simon, 1967; 1968), occupational status (Hermann, 1970), age (Simon, 1967), and sex (Van Dyke, 1977) are associated with juror verdicts. In general, the literature on gender of juror is conflictual.

Much has been written over the years about the desirability, or otherwise, of having women on juries, though there is a certain ambivalence about which side is likely to be favored as a result. The majority view seems to be that women will tend to be more sympathetic to the defense than men, with the exception of cases involving sexual offenses. The available research evidence is no less ambivalent. Simon (1967), for example, found that women tended to be more sympathetic than men towards the defendant in cases involving house-breaking, though more severe than men in incest cases. Some researchers have noted that, in civil cases, there is likely to be a considerable benefit to the litigant, particularly the low-status litigant, from having females on the jury, whereas others have produced the opposite result (Snyder, 1971). Stephan (1974) reported that jurors deciding a homicide of spouse case were more likely to vote to convict a defendant of the same gender as themselves, although at the same time males were, overall, more likely to be perceived as victims of circum-

stances. Kalven and Zeisel (1966) reported that men were five times more likely to be convicted of killing their spouses, in those cases in which the judge also would have ruled a conviction. Barnett and Feild (1978), using a burglary charge, found the gender of the defendant to interact with the defendant's overall attractiveness (i.e., women were assigned shorter sentences than men when they were portrayed as attractive, but men and women portrayed as unattractive received equivalent sentences).

Overall, the research to date indicates that the role of the defendant's gender differs depending on the type of crime. Kalven and Zeisel (1966) suggest that "the crimes committed by women are so different that a simple comparison would reveal little" (p. 202). It seems true, however, that the gender of the defendant (as well as the victim) is an important variable in determining how jurors may process information during a trial, particularly when different types of crime are presented.

Attitude similarity has been recognized as an important factor in jurors' decisions (Dane & Wrightsman, 1982). Indeed, Bell (1973) has argued that the lack of similarity between the attitudes of defendants and those of other participants in the criminal justice system may be the most influential factor in the treatment of some defendants. Griffith and Jackson (1973) concluded that attitude similarity does indeed carry weight. They reported that mock jurors whose attitudes on a variety of issues were dissimilar to those ascribed to the defendant rated him as

more guilty of the offense and suggested longer sentences than did those who believed the defendant's attitudes were similar to theirs. Mitchell and Byrne (1973) achieved similar results, but it was limited to relatively authoritarian jurors. Kerr and Anderson (1978) reported that religious similarity resulted in fewer guilty votes in a child molestation case, but did not find that attitude similarity affected sentencing decisions. Bray (1974; 1976) found leniency effects with a scale of guiltiness; jurors whose attitudes were similar to the defendant's attitudes rated the defendant as less guilty. Gerbasi and Zuckerman (1975) used summaries of trials for a variety of crimes, and consistently found that those jurors whose attitudes were similar to the defendants' rated guilt lower and suggested shorter sentences. Juror decisions have been found to be related to such additional attitudes as liberalism (Reed & Reed, 1977), social approval (Buckout, 1973), punitiveness (Thayer, 1970), and one's belief in the underlying cause (person vs. environment) of the crime (Saks, 1976).

In addition, attitudes toward rape appear to play an important role in juror decision-making in rape trials (Feild, 1978). Jones and Aronson (1973) sought to determine if there were sex differences in the sentencing of a defendant for the rape of a married woman than for the rape of a divorcee. The sentences assigned to the defendant by 234 undergraduate students reading a simulated rape case showed that men and women were no different in their

assigned sentences. Both sex groups gave a similar but longer sentence to the defendant accused of raping a married woman than to the one accused of assaulting a divorcee. LeGrand (1973) and Mathiasen (1974) have noted that the evidence presented in a rape case does not assure a predictable verdict, since jurors' assessments of the case stem in a large way from the attitudes jurors have about rape. These "traditional moral and social attitudes about rape and rape victims, from which the law developed and which it reinforces, are brought to bear on the believability of the victim" (Mathiasen, 1974, p. 43). Thus, the jury may disregard the facts of the case and decide on the basis of its views of rape.

Similarly, Hepburn (1980) found that although strength of prosecution evidence and strength of defense evidence were the major explanatory variables of verdict, case-relevant attitudes of the jury-eligible respondents were related to and influenced by the respondents perception of the strength of the evidence presented by both prosecution and defense. He concluded that "each juror will interpret the strength of the evidence in some degree of concordance with his or her attitudes." In his investigation the attitudes under investigation were attitude toward police and attitude toward punishment. He found that, as predicted, the more favorable the attitude toward police and toward punishment, the more likely the respondent was to render a verdict of guilty based on the case presented.

Although the entire causal linkage remains to be empirically assessed, this review highlights the existence of bivariate relationships between demographic characteristics, juror attitudes, and verdicts. Such evidence has provided sufficient cause to incorporate the procedure into actual jury selection situations. Demographic data have been used to predict juror decisions in such nationally known trials as Angela Davis (Moore, 1974), Joan Little (McConahay et al., 1977), and the Harrisburg Conspiracy Trial (Schulman, Shaver, Colman, Emrick, & Christie, 1973). The failure to convict in these and other "political" trials has lent credibility to the effectiveness of systematic jury selection, so much so, in fact, that some social scientists (Shapely, 1974) have stated publicly that systematic jury selection procedures are effective. More recently, Horowitz (1980) conducted a study assessing the strengths and weaknesses of social science selection techniques and conventional legal methods of jury selection. The social science techniques consisted of instructions on empirical verification, nonverbal cues, demographic and personality data. The legal method was derived from conventional trial practice manuals and other sources. In comparison to those trained in the conventional legal method, those employing the social science techniques were more effective in estimating the decisions of jurors. Horowitz concluded that the results could be partially predicted from the fact that a prior survey of jurors showed demographic and personality variables to be fairly

strongly related to case-relevant attitudes.

In summary, the findings of Feild (1978) and Hepburn (1980) support the earlier work of Boehm (1968) and Reed and Reed (1977) and focus attention on the necessity of further research to explore the relationships among attitudes and verdict. Research of this nature is compelling if only because there is strong (although sparse) evidence that verdicts can be predicted by demographic data alone. While demographic and background variables have been recognized as being among the best predictors of a wide array of human behaviors (Owens, 1968; 1971), they may be of minimal importance in a trial where menstruation is considered and menstrual attitudes are not assessed.

Rationale and Aims of This Investigation

This investigation sought, as the principal focus, to assess the feasibility of utilizing PMS as a substantive defense in a capital case. Although this defense has yet to appear in a United States courtroom, there is widespread eagerness in legal circles to pursue the expansion of the insanity defense to include PMS. In addition, it has been suggested that the PMS defense may also have potential outside the criminal defense arena, particularly in demonstrating misdiagnosis in medical malpractice cases (Tybor, 1982). However, there is little or no information available that would indicate general public perception of such a defense. Therefore, this study sought to determine how the PMS defense was perceived relative to other types of defenses and how responses to the PMS defense varied as a function of more general attitudes concerning menstruation and sex of mock juror.

Secondly, juror characteristics involved in such a trial were seen as important, since who listens to and judges a case may be just as critical a determinant of the outcome of a PMS trial as victim or defendant variables. Data on juror characteristics and verdicts would also seem to play an important role in the selection of jurors for PMS trials (whether for criminal or tort cases) and in establishing the qualifications for jury service. Accordingly, since background/demographic and case-relevant attitudinal variables have been shown to predict juror decision-making, a set of predictors was sought that would be

helpful in jury selection and the qualifications for jury service in a PMS trial.

Given these two major areas as a focus for investigation, four central research questions evolved: 1) How might a PMS defense be evaluated when compared to other defenses for criminal behavior? 2) Is the degree of acceptance of the PMS defense related to a broader set of attitudes regarding menstruation? 3) Which demographic variables influence differential evaluations of the PMS defense? 4) Does knowledge of those demographic characteristics related to respondent's attitudes provide sufficient information to predict the respondent's verdict?

Research Question #1 - the PMS Defense

According to attribution theory, inferences made concerning the causes of a person's behavior affect both judgments of and subsequent reactions to the person. PMS may provide a unique attribution for negative social behavior; and, according to some research, use of menstrual-related excuses is not an infrequent occurrence (Miller & Smith, 1975; Ruble, Boggiano, & Brooks-Gunn, 1982). Moreover, research has indicated a relationship between sociocultural beliefs and menstrual symptoms and theoretical explanations of this relationship have also been offered. Two particularly productive theoretical approaches have applied a labeling and attribution analysis and a cognitive-bias perspective to one's own and others' evaluations of the menstrual

experience (e.g., Koeske, 1980; Ruble & Brooks-Gunn, 1979). In general, these approaches are based on findings that attributions concerning the causes of events (cf. Kelley, 1973), the ways events are labeled (Schachter & Singer, 1962), and biases in the processing of causal information (e.g., Ross, 1977) all affect reactions to and evaluations of these events.

The primary purpose of this investigation, then, was to extend these attribution and cognitive-bias perspectives to one particularly intriguing aspect of others' evaluations of the menstrual cycle - the use of the approach or onset of menstruation as a rationalization or "excuse" for criminal behavior. Not only has using menstruation as an excuse in order to gain more attention, to explain away emotional outbursts, or to avoid unpleasant activities been alluded to by some, but in one study, a large proportion of women reported that they sometimes used menstruation as an excuse to be more emotional (Miller & Smith, 1975). More recently, the notion of menstruation as an excuse for antisocial behavior on the part of some women has come before the legal system. The question arose: How might menstrual-related defenses be evaluated when compared to other defenses for antisocial behavior? It was assumed that the same behavior would be responded to quite differently if it was thought to be due to PMS than if it was attributed to some other cause. A woman employing a PMS defense may be "blamed" for her negative social behavior more than a woman who employs a defense where her menstrual status

is not mentioned. In addition, the former may be judged and reacted to more harshly than if her negative behavior is attributed to events perceived as beyond her control, as in the case of an established mental illness.

In order to assess how a PMS defense for criminal behavior was perceived on dimensions relevant to evaluative judgments, evaluations of a woman's criminal behavior said to be due to PMS were compared with evaluations of criminal behavior perceived to be due to other causes. These causes presumably varied in degree of blameworthiness and amount of control. To that end, and in accordance with established procedures for mock jury trials (Kerr & Bray, 1982), it was necessary to develop appropriate case summaries to assess jurors' decisions. Written narratives of three hypothetical spouse murder cases were presented, one to each subject, depending on the experimental condition to which the subject had been assigned. Mock jurors were asked to evaluate a case of PMS as a temporary insanity defense and two other cases of temporary insanity (one with a treatment history and one without). These case summaries were identical in all respects but the defense content. Differential judgments illuminated perceptions of the PMS variable. The general nature of the PMS defense case is outlined in the Method Section and all three Case Summaries are included in Appendix F.

Research Question #2 - Attitudes Toward Menstruation

It was thought that the degree of acceptance of the PMS

defense may be related to a broader set of attitudes regarding menstruation, such as beliefs about how debilitating cyclic symptoms are and about the extent to which a woman should allow such symptoms to affect her behavior. Several studies indicate that symptoms associated with the menstrual cycle are common knowledge across groups of individuals in that non-menstruating individuals hold beliefs similar to menstruating women (Brooks, Ruble, & Clarke, 1977; Brooks-Gunn & Ruble, 1980; Clarke & Ruble, 1978; Parlee, 1974).

In this study, this relationship was examined by asking participants to complete the Menstrual Attitude Questionnaire (Brooks-Gunn & Ruble, 1980), which includes five menstrual attitude factors (Appendix C). Its use in this study made possible an individualized approach to understanding the responses of men and women to behaviors thought to be menstrual-related. It also allowed for the study of responses as a function of individual variation in beliefs specific to menstruation, with an emphasis on the elicitation of perceptions of the female premenstrual and menstrual experience. It was predicted that individuals who believe that menstruation is psychologically and physiologically debilitating will be more lenient with a woman who employs a PMS defense and be less likely to "blame" the woman for using it than would individuals who deny any effects of menstruation.

The conduct of this facet of the investigation is guided by previous research related to attitudinal influences on jurors'

decision-making, as well as social psychological theory regarding attitude similarity and prediction (Fishbein & Ajzen, 1975; Rokeach & Kliejunas, 1972). In addition, the work of Simon (1968), Hepburn (1980), Feild (1978), and Mitchell and Byrne (1972) has illustrated the role that attitudinal variables play in courtroom situations.

Research Question #3 - The Influence of Background/Demographic Variables

It was thought that males and females might evaluate the use of the PMS defense quite differently, as males have no direct experience with menstrual symptoms nor with the possibility of using PMS as an excuse or defense for negative social behavior. In addition, it has been shown that both adolescent and college-aged males perceive such symptoms to be more severe and debilitating than females do (Clarke & Ruble, 1978; Parlee, 1974). These findings suggest that males may perceive the PMS defense as being more "justified" than do females and thus tend to evaluate such a defense as more viable. Thus, it was predicted that participants' reactions toward a woman with PMS in a simulated courtroom situation would vary as a function of sex as well as of their preconceived beliefs about the effects of menstruation on women in general.

Other demographic and background variables might also prove to influence jurors' decision-making. To explore this third research question, a background and demographic characteristic sheet (BDS, Appendix D) was collected from each participant.

In choosing the background characteristics to be obtained on the participants, the literature on juror decision-making in legal trials (Bergasi, Zuckerman, & Reiss, 1977; Stephan, 1975) and menstrual attitudes (Brooks-Gunn & Ruble, 1980; Tampax Report, 1981), was searched with two purposes in mind: (a) to identify those major individual difference variables which could be useful in characterizing individuals and their views of menstruation, and (b) to select those juror characteristics suggested as being influences on or predictors of jurors' decisions in legal trials. From this review, nine (9) variables were identified and used to construct the background data sheet. Those variables included: age; sex; years of education; marital status; either personal experience with PMS or knowledge of PMS in spouse, close friend, or other relative; occupational prestige; political affiliation; degree of religious commitment; and degree of moral absolutism. These last two variables have been shown to relate to menstrual attitudes (Tampax Report, 1981).

Research Question #4 - Predictors of Decision-Making

The writings and research of Feild (1978), Ginger (1975), Hogarth (1971), Hepburn (1980), and others have suggested that when jurors' background characteristics and attitudes can be measured and included in a phenomenological model of juror decision-making, they become important predictors of jurors' verdicts. Therefore, it was predicted that jurors' background characteristics and attitudes toward menstruation would be

associated with their judicial decisions. Even though empirical research is not yet available to verify these suppositions, Harris (1976), Hibey (1973), and Hepburn (1980) have noted that the outcome of a trial is a function of both what is presented in the case (in terms of victim, defendant, and expert testimony information) as well as who is judging the case (in terms of background characteristics and case-relevant attitudes). In addition, Mitchell and Byrne (1972, p. 124) among others, have also noted that attitudinal variables have been documented as playing an important role in courtroom situations.

To aid in this exploratory analysis, a Post-Deliberation Questionnaire (Appendix H) was adopted to assess each respondent's estimate of perceived certainty of the correctness of the verdict, difficulty in arriving at a decision regarding sentencing, extent of sympathy felt for the defendant, perceived dangerousness of the defendant, and perceived degree of control that the defendant had over her behavior. In addition, mock jurors were asked to respond to questions regarding PMS as a legal defense. Exploration of these post-deliberation questions further illustrated the extent to which subjects employed extra-evidentiary factors in their decision-making.

Psycholegal Implications of This Investigation

Currently the legal system appears to be showing a great deal of interest in the findings of social researchers. Attorneys

have increasingly turned to psychologists and other behavioral scientists to help them with jury selection and other aspects of legal procedure. This interest may wane or become overt rejection if the sources of information prove to be lacking in credibility. In order to successfully bridge the gap between the laboratory and the courtroom, theory testing in the laboratory is essential to scientifically assisted legal progress and innovation.

It was thought that the findings of this research, should their generalizability to an actual jury setting be further demonstrated, could have important and immediate practical implications. Counsels representing both sides of a legal dispute could use this information to more efficiently map their arguments against prominent jury concerns, particularly with regard to juror acceptance of the PMS defense.

It is argued that because some courts may not permit the direct assessment of jurors' attitudes toward menstruation and PMS during the course of voir dire, the relationships of juror demographic characteristics with such attitudes needs to be explored. Since the demographic characteristics of potential jurors who reach voir dire are easy to discover, any identified relationships could then be used to predict jurors' views of menstruation. Thus, if one knew that certain background characteristics, for example, age or sex, educational level, or occupational prestige, were linked to attitudes for a sample drawn from the same population as potential jurors having reached

the voir dire stage, one might select jurors on the basis of demographic characteristics alone. More specifically, psychologists can conduct demographic and attitude surveys of people in the various areas of neighborhoods from which the jury is to be empaneled. Based on their findings, they can tell the attorneys what characteristics are typical of people whose attitudes are the most likely to favor the client's case. Moreover, it may be possible that the questioning of jurors during voir dire about PMS and menstruation in general may be permitted in a number of jurisdictions (e.g., some jurisdictions allow questioning about attitudes toward rape, Reich, 1978). Assuming attitude questioning to be acceptable, the results of this investigation may indicate that efforts should be directed toward developing that possibility.

In summary, then, this investigation provided a means to explore the general acceptance of a novel episodic behavioral disorder into the current legal framework by (1) determining how the PMS defense is perceived relative to other defenses, (2) correlating the degree of acceptance or rejection of the PMS defense with general menstrual attitudes, (3) determining which demographic variables influence differential evaluations of the PMS defense, and (4) determining if knowledge of those demographic characteristics related to jurors' attitudes provide sufficient information to predict the jurors' verdicts.

METHOD

Participants

One hundred-eighty participants were recruited from the University population in accordance with university regulations regarding research participants. In order to obtain a wide variety of participants, an attempt was made to recruit student volunteers from evening classes which are normally made up of older, working students. The study was advertised as an investigation of jury decision-making. Experimental points were offered and appropriately recorded, and informed consent materials were obtained. Participants were assured of anonymity and informed that they would be able to receive a copy of the research findings when the study was completed (Appendices A & B).

Measures

Four questionnaires were incorporated in the study:

(1) Menstrual Attitude Questionnaire, (2) Background and Demographic Characteristics Sheet, (3) Case Summaries, and (4) Post-Deliberation Questionnaire. Each of these is described below:

- 1) Menstrual Attitude Questionnaire (MAQ). The Menstrual Attitude Questionnaire (Brooks-Gunn & Ruble, 1980) was utilized to describe attitudes toward menstruation. This instrument consists of 33 items designed to tap five dimensions of menstrual attitudes:

- a) Factor I - Menstruation as a psychologically and physiologically debilitating event.
- b) Factor II - Menstruation as a natural or positive event.
- c) Factor III - Menstruation as a bothersome event.
- d) Factor IV - Menstruation as an event which can be anticipated or predicted.
- e) Factor V - Menstruation as an event that does not and should not influence one's behavior (denial).

Items are rated on a seven-point scale from 1 = disagree strongly to 7 = strongly agree. Scale homogeneity is high (Cronbach's alpha = 0.80 to 0.93, Brooks-Gunn & Ruble, 1980).

The MAQ provides an attempt at conceptualizing menstruation as multi-dimensional. The MAQ's factor structure has been replicated on a separate sample, and the internal consistency of the questionnaire has been demonstrated (Brooks-Gunn & Ruble, 1980). In order to disguise the nature of the questionnaire, items from the MAQ were embedded in a questionnaire assessing attitudes toward the mentally ill (Appendix C).

2) Background and Demographic Characteristics Sheet (BDS).

The BDS provided the following background or demographic information on the participants:

- a) age
- b) sex
- c) years of education

- d) marital status
- e) personal experience with PMS or knowledge of PMS
in spouse, close friend, or other relative.
- f) Occupational Prestige Scale (Reiss, 1961)
- g) Degree of Religious Commitment
- h) Moral Absolutism Scale
- i) political affiliation

With regard to the Occupational Prestige Scale - for non-working subjects, they were asked to indicate spousal or parental occupation roles. Both the degree of religious commitment scale and moral absolutism scale have been validated in a previous study (The Connecticut Mutual Life Report on American Values in the 80's: The Impact of Belief, Tampax Report, 1981). More specific scoring information on the BDS is contained in Appendix E.

3) Juror Decision-Making (Case Summaries). Written narratives of three hypothetical spouse murder cases were presented, one to each participant, depending on the experimental condition to which they had been assigned. Each written narrative included: 1) judges' introduction to the jury, 2) case defense arguments, description of the crime, the defendant, and victim, 3) synopsis of expert testimony, 4) prosecution major points of testimony, and 5) judges' instructions to the jury regarding expert testimony and sentencing requirements (Appendix G). In each condition the defense arguments were varied as follows:

Case A: Temporary insanity due to PMS with a treatment history.

Case B: Temporary insanity defense with prior psychiatric treatment history.

Case C: Temporary insanity defense with no prior treatment history (extreme emotional trauma).

All three cases were identical in the following respects:

- a) age of defendant
- b) sex of defendant
- c) marital status of defendant
- d) victims portrayed as identical in each case
- d) particulars of the crime identical
- e) all three defendants middle-class and employed in professional positions
- f) each case introduced "expert testimony" as regards the defendants' emotional state at the time of commission of the crime. Only Cases A & B introduced treatment histories.
- g) each of the defense arguments called for an acquittal on the grounds of temporary insanity (NGRI)
- h) each of the prosecution arguments asserted that an NGRI was unwarranted.
- i) judges' instructions regarding expert testimony and sentencing procedures were identical in each case.

The general nature of the three case summaries was as follows (the reader is referred to Appendix F for all three Case Summaries):

A 27-year old married female, employed as an accountant, was charged with first-degree murder in the shooting death of her husband. The shooting followed an argument over the husband's infidelity and request for a divorce from the defendant. The defendant did not deny firing the fatal shot, but entered a plea of Not Guilty Due to Insanity (NGRI). Expert testimony was offered as to the defendant's mental state at the time of commission of the crime. The defense argued that the defendant should be acquitted of the charge and offered suitable treatment, entering a plea of NGRI. The prosecution asserted that the defendant willfully and with premeditation committed the act and should be found Guilty and sentenced accordingly.

Case A introduced expert testimony regarding PMS, including a history of treatment. Records from an endocrinologist and gynecologist who had attempted to treat the defendant were introduced to the jury. The defense argued that the defendant was temporarily insane at the time of the murder due to a severe premenstrual condition. The prosecution argued that definite proof of PMS was absent and that the defendant acted with premeditation.

In Case B the defense introduced the defendant's previous history of treatment for mental illness and asserted that the

defendant was temporarily insane at the time of the murder. Prosecution arguments centered around the severity of the act, premeditation, and proof that the defendant was insane at the time of commission of the crime. Expert testimony was introduced regarding the defendant's mental state on the day of the shooting.

Case C was identical in all respects to Case B, but excluded a history of treatment for mental illness. Defense asserted that the defendant was driven by jealousy to a crime of passion and that in similar circumstances many otherwise normal persons would be compelled to the same act. Expert testimony was presented regarding loss of control from extreme emotional trauma in otherwise normally functioning individuals. Prosecution arguments were identical to Case B.

4) Post-Deliberation Questionnaire

All participants were asked to indicate how difficult it was for them to come to a decision about the verdict, about perceived certainty of the correctness of the verdict, the extent of sympathy felt for the defendant, perceived dangerousness to society of the defendant, and the amount of control the subject felt the defendant had over her behavior. In addition, they were asked to indicate whether they thought the NGRI defense was overused in our courts. Five additional items regarding the PMS defense were included. These questions were adapted from the Glamour survey conducted in 1982 (Glamour, 1982). Finally, space was provided for participants to report any subjective comments

they had concerning the study. The Post-Deliberation Questionnaire is included in this report as Appendix H.

Procedure

The mock jurors were asked to answer all questionnaires in the presence of the experimenter. The 180 participants were first asked to complete the BDS and MAQ. Following completion of these measures, they were randomly assigned to one of the experimental conditions - and given the appropriate Case Summaries to read. Participants were then asked to read the narrative of the trial and on the basis of this information to make a decision about the defendant's guilt or innocence, in accordance with the judge's instructions, "to set aside biases and render a verdict solely on the evidence, just as a real juror would do" (Kerr & Bray, 1982, p. 57). Participants were asked to do the following:

- a) decide on the guilt or innocence of the defendant, indicating Guilty or Not Guilty Due to Reason of Insanity (NGRI), and
- b) if they found the defendant guilty, to sentence to an institutional term from 1 to 99 years.

After the cases were collected, participants were then asked to complete the Post-Deliberation Questionnaire. At the conclusion of each data-collection session, the completed instruments were returned to the investigator and the participants debriefed as to the exact nature of the study. Participants were assured of anonymity and all materials were identified by code numbers.

Research Design

Thirty females and thirty males were assigned to each experimental condition, with number and sex balanced across conditions as follows:

	<u>Defense Arguments</u>		<u>Prosecution Arguments</u>	
	Males	<u>First</u> / Females	Males	<u>First</u> / Females
<u>CASE A</u>	15	15	15	15
<u>(PMS)</u>				
<u>CASE B</u>	15	15	15	15
<u>(Schizophrenia)</u>				
<u>CASE C</u>	15	15	15	15
<u>(No Rx History)</u>				

The independent variables included: attitudinal scores, background/demographic information, and items from the post-deliberation questionnaire. Dependent measures employed were guilty-NGRI verdicts as well as sentencing determinations, scored through length of sentence (0 - 99 years). If the defendant was found innocent, she was given a score of 0 years.

Two control variables were employed: (1) assignment of subjects to each of three experimental conditions, and (2) internal order of argument presentation within cases. The order of presentation within cases was balanced so that each juror participated in one of two presentation conditions - prosecution arguments followed by defense arguments, and defense arguments followed by prosecution arguments.

RESULTS

This mock jury study explored the general acceptance of a novel episodic behavioral disorder into the current legal framework by determining how the PMS defense is perceived relative to other, more commonly accepted defenses. In addition, this study correlated the degree of acceptance or rejection of the PMS defense with general menstrual attitudes. Demographic variables which might influence differential evaluations of the PMS defense were also explored to determine if knowledge of those demographic characteristics related to jurors' attitudes provide sufficient information to predict jurors' verdicts. In general, it was predicted that jurors in the PMS condition would be less likely to accept an insanity defense and would offer more convictions than jurors in the other two conditions. In addition, it was predicted that when convicted there would be harsher sentences imposed on the PMS defendant than for other defendants found guilty of identical antisocial behavior. It was also predicted that those mock jurors imposing longer sentences on the PMS defendant would be less likely to hold negative and restrictive menstrual attitudes. These major hypotheses were partially supported by the data gathered and will be discussed below in greater detail following a general description of the sample.

General Characteristics of the Sample

Examination of Table 1 reveals a rather young sample, with most participants less than 21 years of age and single. Occupational prestige was high, indicating that most had likely responded by stating their parents occupational levels. Political affiliation was likely to be moderate and most participants were either of the Catholic or Protestant religions. Degree of religious commitment was generally designated as low, while degree of moral absolutism was generally in the low to moderate range. More than three-fourths of the sample indicated that neither they nor someone close to them had had experience with PMS. Approximately the same proportion had had no previous treatment of an emotional disorder.

Hypotheses Testing

Research Question #1: How might a PMS defense be evaluated when compared to other defenses for criminal behavior?

It had been predicted that jurors would be less likely to accept an insanity defense in the PMS case than in the other two cases. This hypothesis was not supported as can be seen in the summary below:

<u>GROUP</u>	<u>Acceptance of Insanity Defense (NGRI)</u>	<u>Rejection of Insanity Defense (Guilty)</u>
CASE A (PMS)	33.3%	66.7%
CASE B (Schizophrenia)	53.3	46.7
CASE C (No Treatment)	28.3	71.7

TABLE 1
General Characteristics of the Sample

Sex: 90 males, 90 females

Age: Range 17 to 56 yrs, with 60% aged 21 or under

Marital Status: Single: 80.6%
 Married: 19.4%

Education: 65% with 15 or less yrs. of education

Occupational Prestige: Ranged from 16 to 96, Mean = 59.

Political Affiliation:

Liberal	12.8%
Moderate	57.5%
Conservative	29.6%

Religious Preference:

Catholic	44.9%
Protestant	36.5%
Jewish	1.7%
Other	16.9%

Degree of Religious Commitment:

Low	59.4%
Moderate	33.9%
High	6.7%

Degree of Moral Absolutism:

Very Low	20.0%
Low	25.0%
Moderate	25.0%
High	16.1%
Very High	13.9%

Experience/Knowledge of PMS: No = 78.9%
 Yes = 21.1%

History of Treatment for Emotional Disorder: No: 74.4%
 Yes: 25.6%

Case C received the larger number of convictions (71.7%) followed by Case A with 66.7% and Case B with 46.7%. These main results are further summarized in Table 2. Case B (Schizophrenia) also had the largest proportion of NGRI verdicts (53.3% of the mock jurors in Case B condition accepted the insanity defense) while Cases A and C reported NGRI verdicts of 33.3% and 28.3%, respectively.

Table 3 presents an analysis of variance that indicates that with verdict as the dependent measure, there was a main effect for Case, $F(5,174) = 4.62$, $p < .01$. Sex of juror was not significant, $F(1,174) = 0.02$, $p > .87$, and the interaction of case x sex of juror did not reach significance, $F(5,174) = 1.93$, $p > .14$. Males and females did not differ with respect to willingness to convict or acquit the defendant. Post-hoc analyses revealed that Cases A and C were not significantly different from each other, however, Case B was significantly different from Cases A and C. Thus, similar conviction rates obtained in Cases A and C, with Case B receiving significantly fewer judgments of guilty. The PMS defendant was judged no more severely than the defendant who had committed the exact same crime under the exact same circumstances but who had entered a plea of extreme emotional disturbance (temporary insanity) with no history of mental disorder.

It had also been predicted that, when convicted, the PMS defendant would receive longer sentences than the defendants in the other two conditions. Again, the hypothesis was not supported. Utilizing sentence as the dependent measure, a main effect was

TABLE 2
General Findings

	NGRI VERDICT		GUILTY VERDICT		MEAN SENTENCE	
	<u>Males</u>	<u>Females</u>	<u>Males</u>	<u>Females</u>	<u>Males</u>	<u>Females</u>
	N	N	N	N	Yrs.	Yrs.
CASE A (PMS)	12	8	18	22	18.7	23.5
CASE B (Schizophrenia)	13	19	17	11	31.1	47.3
CASE C (No Treatment)	9	8	21	22	29.5	25.7

TABLE 3

ANOVA TABLE OF THREE GROUPS WITH VERDICT AS DEPENDENT VARIABLE

<u>Source</u>	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F</u>	<u>p</u>
Case	2	2.100		4.62	.01
Sex	1	0.005		0.02	.87
Case x Sex	2	0.877		1.93	.14
Error	174	39.5	.227		
Corrected Total	179				

found for Case, $F(5,105) = 3.44$, $p < .05$. However, neither sex nor the interaction of case by sex were significant. These findings are presented in Table 4. Male and female mock jurors did not differ with respect to length of sentence imposed. Post-hoc analyses of the data revealed the following means for years of sentencing: Case A = 21.8; Case B = 37.4; and Case C = 27.5 years. Cases B and C were not statistically significant from each other, but Case A was significantly different from both B and C. Thus, for those who convicted the defendant, there were significantly shorter sentences given the PMS defendant than for the other two cases.

Age Effects on Verdict and Sentencing Decisions

Participants ranged in age from 17 to 56 years with a mean age of 21 years. In order to determine if there was either an age main effect or an interaction of sex x age x case, an analysis of variance was performed. The results of this analysis are presented in Table 5. No significant main effect of age was found, $F(1,136) = 0.01$, $p > .93$. Thus, there was no significant difference in acceptance or rejection of the insanity defense between younger and older mock jurors. No significant interaction was obtained between sex of juror, age and verdict, $F(1,136) = 1.55$, $p > .22$. Means and least-square means for these analyses are presented in Table 6.

TABLE 4

ANOVA TABLE OF THREE GROUPS WITH SENTENCE AS DEPENDENT
VARIABLE

<u>Source</u>	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F</u>	<u>p</u>
Case	2	5233.		3.44	.03
Sex	1	858.		1.13	.29
Case x Sex	2	1636.		1.08	.34
Error	105	79766.	759.		
Corrected Total	110	86168.			

TABLE 5

ANOVA OF CHECK FOR AGE EFFECT WITH VERDICT AS DEPENDENT

VARIABLE

<u>Source</u>	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F</u>	<u>P</u>
Case	2	2.323		5.24	.006
Sex	1	0.0007		0.00	.953
Case x Sex	2	0.6858		1.55	.216
Age	1	0.0014		0.01	.935
Error	136	30.1425	0.2216		
Corrected	142	33.0909			
Total					

TABLE 6
MEANS & LEAST SQUARE MEANS FOR AGE EFFECT
DEPENDENT VARIABLE VERDICT

<u>Case</u>	<u>Sex</u>	<u>N</u>	<u>VERDICT*</u>	<u>AGE MEAN</u>	<u>VERDICT LS MEAN</u>	<u>STD ERROR LS MEAN</u>	<u>PROB > T</u>
A	Male	25	.6000	23.04	.6003	.0942	.0001
	Female	23	.7391	22.48	.7391	.0981	.0001
B	Male	25	.5600	21.64	.5595	.0943	.0001
	Female	22	.3636	24.27	.3647	.1012	.0004
C	Male	24	.7500	21.46	.7494	.0964	.0001
	Female	24	.7917	22.12	.7915	.0961	.0001

*This value represents % of Ss.

Similar non-significant age effects were found when sentence was the dependent variable. Age was non-significant, $F(1,84) = 0.88$, $p > .35$, as can be seen in Table 7. Younger or older participants did not differ with respect to length of sentence imposed. Males and females falling into younger or older participant groups also did not differ with respect to length of sentence imposed. There was a non-significant age x sex x sentence interaction, $F(1,84) = 0.26$, $p > .77$. Means and least-squares means for these analyses are presented in Table 8.

A check for violation of assumptions of analysis of covariance was performed and was found non-significant for both verdict and sentencing decisions. Both of these analyses are presented as Tables 9 and 10, with means and least-squares means for these findings given in Tables 11 and 12.

TABLE 7 .

ANOVA FOR CHECK FOR AGE EFFECT WITH SENTENCE AS DEPENDENT
VARIABLE

<u>Source</u>	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F</u>	<u>p</u>
Case	2	2101.2		1.47	.24
Sex	1	619.8		.87	.35
Case x Sex	2	375.2		.26	.77
Age	1	630.2		.88	.35
Error	84	59904.9	713.1		
Corrected Total	90	63526.9			

TABLE 8
MEANS & LEAST SQUARE MEANS FOR AGE EFFECT
DEPENDENT VARIABLE SENTENCE

<u>Case</u>	<u>Sex</u>	<u>N</u>	<u>MEAN SENTENCE</u>	<u>AGE MEAN</u>	<u>SENTENCE LS MEAN</u>	<u>STD ERROR LS MEAN</u>	<u>PROB > T</u>
A	Male	15	19.47	22.47	19.37	6.985	.0062
	Female	17	23.94	21.41	24.41	6.496	.0003
B	Male	14	29.28	21.92	29.48	7.140	.0001
	Female	8	42.37	25.75	40.53	9.641	.0001
C	Male	18	26.66	21.22	27.23	6.323	.0001
	Female	19	27.89	22.79	27.63	6.132	.0001

TABLE 9

ANOVA FOR CHECK FOR VIOLATION OF ASSUMPTIONS OF
ANALYSIS OF COVARIANCE WITH VERDICT
AS DEPENDENT VARIABLE

<u>Source</u>	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F</u>	<u>P</u>
Case	2	.9214		2.07	.13
Sex	1	.1925		.86	.35
Case x Sex	2	.0841		.19	.83
Age	1	.0617		.28	.59
Age x Case	2	.5672		1.27	.28
Age x Sex	1	.1810		.81	.36
Age x Case x Sex	2	.1735		.39	.68
Error	131	29.1589	.2225		
Corrected Tot.	142	33.0909			

TABLE 10
ANOVA FOR CHECK FOR VIOLATION OF ASSUMPTIONS OF
ANALYSIS OF COVARIANCE WITH SENTENCE
AS DEPENDENT VARIABLE

<u>Source</u>	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F</u>	<u>p</u>
Case	2	1837.		1.27	.28
Sex	1	16.		.02	.88
Case x Sex	2	293.		.20	.81
Age	1	324.		.45	.50
Age x Case	2	1634.		1.82	.17
Age x Sex	1	1.		.00	.97
Age x Case x Sex	2	271.		.19	.83
Error	79	57028.	721.8		
Corrected Total	90	63526.			

TABLE 11
MEANS & LEAST SQUARE MEANS FOR CHECK FOR VIOLATION OF
ASSUMPTIONS OF ANALYSIS OF COVARIANCE WITH
VERDICT AS DEPENDENT VARIABLE

<u>CASE</u>	<u>SEX</u>	<u>N</u>	<u>VERDICT LS MEAN</u>	<u>STD ERROR LS MEAN</u>	<u>PROB > T</u>
A	Male	25	.6190	.0958	.0001
	Female	23	.7391	.0984	.0001
B	Male	25	.5744	.0978	.0001
	Female	22	.3429	.1040	.0013
C	Male	24	.7215	.1038	.0001
	Female	24	.7959	.0964	.0001

TABLE 12
MEANS & LEAST SQUARE MEANS FOR VIOLATION OF ASSUMPTIONS
OF ANALYSIS OF COVARIANCE WITH SENTENCE AS DEPENDENT
VARIABLE

<u>CASE</u>	<u>SEX</u>	<u>N</u>	<u>SENTENCE LS MEAN</u>	<u>STD ERROR LS MEAN</u>	<u>PROB > T</u>
A	Male	15	19.66	6.949	.0059
	Female	17	23.55	6.653	.0007
B	Male	14	30.44	7.222	.0001
	Female	8	36.14	10.347	.0008
C	Male	18	26.27	6.871	.0003
	Female	19	27.86	6.178	.0001

RESEARCH QUESTION #2: Is the degree of acceptance of the PMS defense related to a broader set of attitudes regarding menstruation?

It was hypothesized that participants' reactions toward a PMS defendant in a simulated courtroom situation would vary as a function of their preconceived beliefs about the effects of menstruation on women in general. Participants' scores on each of the five factors composing the Menstrual Attitude Questionnaire (MAQ) were predicted to be related to their willingness to accept or reject PMS as worthy of an insanity defense. Specifically, it was predicted that those holding negative and restrictive menstrual attitudes (Factor I on the MAQ) would render more NGRI verdicts. In addition, if found guilty, it was predicted that this same group would also impose shorter sentences. An unwillingness to accept the PMS defense was predicted to be related to a higher score on Factor V of the MAQ (Menstruation is an event that does not and should not affect one's behavior - denial).

Table 13 provides the summary statistics on the five menstrual attitude factors for Case A (PMS). Males perceived menstruation as more psychologically and physically debilitating than did females, $t = 4.08$, $p < .05$. Males felt that women are more tired, emotional, do not perform as well intellectually, and should have lower expectations for themselves during menstruation. Conversely, females saw menstruation as an event that is more positive or natural

TABLE 13
SUMMARY STATISTICS FOR MENSTRUAL ATTITUDE QUESTIONNAIRE
CASE A - PMS

<u>Factor Score</u>	<u>N</u>	<u>Mean</u>	<u>S.D.</u>	<u>S.E.</u>	<u>t-value</u>	<u>p</u>
I <u>Debilitation</u>						
Male	30	4.88	.77	.14	4.08	.0001*
Female	30	3.96	.94	.17		
II <u>Bothersome</u>						
Male	30	4.67	.96	.18	1.64	.1063
Female	30	4.23	1.11	.20		
III <u>Natural/Positive</u>						
Male	30	4.04	.69	.13		
Female	30	4.63	.81	.15	-3.04	.0035*
IV <u>Predictable</u>						
Male	30	5.52	.94	.17		
Female	30	5.95	1.01	.18	-1.71	.0919**
V <u>Denial of Effects</u>						
Male	30	3.37	.67	.12	.63	.5295
Female	30	3.20	1.29	.24		

* $p < .05$

** $p < .01$

($t = 3.04$, $p < .05$). Females also felt that menstruation is an event that can be easily anticipated or predicted, $t = -1.71$, $p < .01$. Both sexes, however, did not deny that menstruation has some effects.

The Effects of Attitudes on Verdict & Sentencing Decisions

As can be seen from Table 14, Factors I and II of the MAQ were related to conviction decisions for male jurors only. Thus, those male jurors who felt strongly that menstruation is a physically and psychologically debilitating event had a greater tendency to render NGRI's than did those scoring low on these factors of the MAQ. None of the other MAQ factors were related to conviction decisions for males or females.

There was not, however, a positive correlation between Factor I and sentencing as had been predicted. Those mock jurors who felt that menstruation is an event that is psychologically and physically debilitating did not have a tendency to render shorter sentences and this was true for male and female jurors. As predicted, those jurors who felt that menstruation is an event that does not and should not influence one's behavior (Factor V) rendered significantly longer sentences ($r = 0.48$, $p < .05$), but this was true for female jurors only. It was also found that there was a negative correlation between MAQ Factor IV and sentence for female jurors, indicating that those female jurors who thought menstruation an event that can be easily anticipated and predicted rendered longer sentences ($r = -0.54$, $p < .05$). There were no significant correlations between MAQ factors and sentencing decisions for male jurors.

TABLE 14
Correlation Coefficients for Menstrual Attitude Factors
Case A

	<u>MAQ1</u>	<u>MAQ2</u>	<u>MAQ3</u>	<u>MAQ4</u>	<u>MAQ5</u>
<u>VERDICT</u>					
Males	-0.75*	-0.38*	0.27	-0.29	-0.05
Females	0.16	0.27	-0.27	-0.15	-0.03
<u>SENTENCE</u>					
Males	-0.17	0.03	-0.17	-0.18	0.19
F males	-0.28	-0.18	0.05	-0.54*	0.48*

*p = < .05

RESEARCH QUESTION #3: Which background/demographic variables influence differential evaluations of the PMS defense?

The Background Data Sheet contained the following variables for analysis: (1) Age; (2) Sex of juror; (3) Years of Education; (4) Marital status; (5) Personal experience with PMS or knowledge of PMS in spouse, close friend or other relative; (6) Occupational prestige; (7) Degree of Religious Commitment; (8) Political affiliation; (9) Degree of Moral Absolutism; and (10) Religious Affiliation. Of these ten factors, four were found to be related to sentencing or verdict decisions: sex of juror; years of education; personal experience with PMS or knowledge of PMS in spouse, close friend or other relative; and degree of religious commitment. These four variables are detailed below:

1. Sex of Juror

Due to differential correlations on attitudes in Question #2, the data were further analyzed using analysis of covariance.

Verdict. It was predicted that sex of juror would influence verdict decisions with males scoring high on Factor I of the MAQ more likely to accept the PMS defense. Analysis of covariance with verdict as the dependent variable revealed that MAQ1 was significant, $F(1,56) = 10.33, p < .0022$. The interaction of sex x MAQ1 was also significant, $F(1,56) = 20.68, p < .0001$. Males scoring higher on Factor I of the MAQ (menstruation is an event that is physically and psychologically debilitating) rendered significantly more NGRI verdicts than did females in the PMS group. These analyses are

TABLE 15
 MAQ FACTOR 1 (DEBILITATING) WITH VERDICT
 AS DEPENDENT VARIABLE
CASE A (PMS)

<u>Source</u>	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F-Value</u>	<u>PR > F</u>
MAQ1	1	1.627		10.33	.0022
Sex	1	3.126		19.84	.0001
MAQ1 x Sex	1	3.258		20.68	.0001
Error	56	8.824	0.157		
Corrected Total	59	13.333			

TABLE 16
 MEANS & LEAST SQUARE MEANS FOR MAQ FACTOR 1 (DEBILITATING) WITH
VERDICT AS DEPENDENT VARIABLE
CASE A (PMS)

<u>Sex</u>	<u>N</u>	<u>VERDICT</u>	<u>MAQ1 MEAN</u>	<u>VERDICT LS MEAN</u>	<u>STD ERROR LS MEAN</u>	<u>PROB > T</u>
Male	30	.600	4.878	.8162	.0840	.0001
Female	30	.733	3.959	.7705	.0809	.0001

shown in Table 15, with means and least-square means shown in Table 16.

Sentencing. Male and female jurors did not differ significantly with regard to length of sentence when they found the PMS defendant guilty. Analysis of covariance with sentence as the dependent variable and MAQ 1 as the covariate revealed that MAQ1 was not significant, $F(1,36) = .94, p > .3386$. The interaction of sex x MAQ1 was also non-significant, $F(1,36) = .03, p > .8673$. Therefore, the prediction that males scoring high on MAQ1 would render shorter sentences than females was unsupported by these data. These analyses are shown in Table 17, with means and least-square means shown in Table 18.

2. Years of Education

Verdict. Analysis of variance with verdict as the dependent variable revealed that level of education was significantly related to a willingness to render a verdict of NGRI, $F(1,59) = 4.22, p < .0447$. Sex of juror and level of education was non-significant, $F(1,59) = .17, p > .6829$. A least-squares means post-hoc analysis revealed that jurors with higher levels of education were more willing to accept an insanity defense for the PMS defendant and thus rendered more NGRI verdicts. The foregoing analyses are shown in Tables 19 and 20.

Sentencing. Analysis of variance with length of sentence as the dependent variable revealed that level of education was unrelated

TABLE 17
 MAQ FACTOR 1 (DEBILITATING) WITH
SENTENCE AS DEPENDENT VARIABLE

CASE A (PMS)

<u>Source</u>	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F-value</u>	<u>PR > F</u>
MAQ1	1	469.0		.94	.3386
Sex	1	20.6		.04	.8400
MAQ1 x Sex	1	14.1		.03	.8673
Error	36	17948.7	498.6		
Corrected Total	39	19571.1			

TABLE 18
 MEANS & LEAST SQUARE MEANS FOR MAQ FACTOR 1 (DEBILITATING) WITH
 SENTENCE AS DEPENDENT VARIABLE
CASE A (PMS)

<u>Sex</u>	<u>N</u>	<u>Sentence</u>	<u>MAQ1 MEAN</u>	<u>SENTENCE LS MEAN</u>	<u>STD ERROR LS MEAN</u>	<u>PROB > T</u>
Male	18	18.72	4.397	19.76	5.797	.0016
Female	22	23.50	4.054	22.29	4.819	.0001

TABLE 19
 YEARS OF EDUCATION WITH VERDICT
 AS DEPENDENT VARIABLE
CASE A (PMS)

<u>Source</u>	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F-Value</u>	<u>PR > F</u>
EduclIS	1	.9125		4.22	.0447
Sex	1	.2365		1.09	.3003
EducMS x Sex	1	.0365		0.17	.6829
Error	56	12.1176	0.216		
Corrected Tot.	59	13.333			

TABLE 20
MEANS AND LEAST SQUARE MEANS FOR YRS OF EDUCATION WITH
VERDICT AS DEPENDENT VARIABLE

<u>Low Educ. Level*</u>	<u>Sex</u>	<u>N</u>	LS MEAN	<u>STD ERROR LS MEANS</u>	<u>PROB > T</u>			
			<u>NGRI</u>		<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
	Male	17	.4706	.1128	-	.2734	.0869	.0326
	Female	17	.6470	.1128	.2734	-	.4789	.2503
<u>High Educ. Level</u>	Male	13	.7692	.1290	.0869	.4789	-	.6749
	Female	13	.8461	.1290	.0326	.2503	.6749	-

*Below 15 yrs.

to length of sentence imposed, $F(1,39) = 0.38$, $p > .5436$. Sex of juror was non-significant, $F(1,39) = 0.44$, $p > .5132$, as was the interaction of sex x level of education, $F(1,39) = 0.22$, $p > .6437$. These analyses are shown in Table 21.

3. PMS Experience

Participants were asked to indicate whether they had any experience, either themselves or knowledge of PMS in spouse, close friend or other relative. Eight males and 5 females responded affirmatively. Analyses of variance were performed to determine if this factor influenced verdict or sentencing decisions.

Verdict. Table 22 reveals that with verdict as the dependent variable, sex of juror was significant, $F(1,59) = 5.96$, $p < .0178$. However, neither PMS ($F(1,56) = 0.30$, $p > .5870$), nor the interaction of PMS x sex ($F(1,56) = 7.57$, $p > .0076$), were significant. A least-squares means post-hoc analysis revealed that males who responded affirmatively to this question were more likely to accept PMS as an insanity defense and to render an NGRI verdict. These means and least-square means are shown in Table 23.

Sentencing. Analysis of variance with length of sentence as the dependent variable is shown in Table 24. There was neither a main effect nor any interactions, with PMS ($F(1,36) = 0.26$, $p > .6106$). Sex of juror was nonsignificant, $F(1,36) = 0.38$, $p > .5399$, as was the interaction of PMS x sex, $F(1,36) = 0.02$, $p > .8776$. The mean for non-experienced males was 19.5 years and for experienced

TABLE 21
YEARS OF EDUCATION WITH SENTENCE
LENGTH AS DEPENDENT VARIABLE
CASE A (PMS)

<u>Source</u>	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F-Value</u>	<u>PR > F</u>
EducMS	1	198.40		0.38	.5436
Sex	1	230.09		0.44	.5132
EducMS x Sex	1	114.80		0.22	.6437
Error	36	18995.92	527.66		
Corrected Total	39	19571.10			

TABLE 22
PMS EXPERIENCE WITH VERDICT
AS DEPENDENT VARIABLE
CASE A (PMS)

<u>Source</u>	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F-Value</u>	<u>PR > F</u>
PMS	1	.0602		0.30	.5870
Sex	1	1.203		5.96	.0178
PMS x Sex	1	1.549		7.67	.0076
Error	56	11.303	.2018		
Corrected Total	59	13.333			

TABLE 23
MEANS & LEAST SQUARE MEANS FOR PHS EXPERIENCE WITH VERDICT
AS DEPENDENT VARIABLE

<u>Experience</u>		<u>N</u>	<u>NGRI LS MEAN</u>	<u>STD ERROR LS MEANS</u>	<u>PROB > T</u>			
<u>Sex</u>					<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
Male		8	.2500	.1588	-	.0049	.0128	.0220
Female		5	1.0000	.2009	.0049	-	.2256	.1516
<u>No Experience</u>								
Male		22	.7272	.0958	.0128	.2256	-	.7202
Female		25	.6800	.0898	.0220	.1516	.7202	-

males the mean sentence length was 12.5 years. The mean sentence length for experienced females was 20.6 years and for non-experienced females the mean sentence length was 24.3 years.

4. Degree of Religious Commitment

Participants were asked to complete a scale measuring their degree of religious commitment as either high, moderate, or low. Analyses of variance were performed to determine if this factor was related to verdict or sentencing decisions.

Verdict. Table 25 reveals that with verdict as the dependent variable, there was a significant effect for sex of juror, $F(1,54) = 4.75$, $p < .0337$. A least-squares means post-hoc analysis revealed that males who reported a high degree of religious commitment were significantly more likely to accept the insanity defense and to render an NGRI verdict. These means and least-square means are shown in Table 26.

Sentencing. Analysis of variance with length of sentence as the dependent variable is shown in Table 27. There was neither a main effect for degree of religious commitment nor any interactions, with degree of religious commitment yielding $F(2,35) = 0.50$, $p > .6079$. Sex of juror was nonsignificant at $F(1,35) = 0.46$, $p > .5021$, as was the interaction of religious commitment x sex with $F(1,35) = 0.29$, $p > .5931$. Those reporting a low degree of religious commitment imposed an average sentence length of 23.5 years; moderates an average of 19.3 years; and those reporting a high degree of commitment an average of 10.0 years.

TABLE 24

PMS EXPERIENCE WITH SENTENCE LENGTH
AS DEPENDENT VARIABLE

CASE A (PMS)

<u>Source</u>	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F-Value</u>	<u>PR > F</u>
PMS	1	140.78		0.26	.6106
Sex	1	204.27		0.38	.5399
PMS x Sex	1	12.83		0.02	.8776
Error	36	19203.58	533.43		
Corrected Total	39	19571.10			

TABLE 25
 DEGREE OF RELIGIOUS COMMITMENT WITH
 VERDICT AS DEPENDENT VARIABLE
CASE A (PLS)

<u>Source</u>	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F-Value</u>	<u>PR > F</u>
Relig. Commit.	2	0.319		0.72	.4900
Sex	1	1.048		4.75	.0337
ReligComm x Sex	2	0.817		1.85	.1669
Error	54	11.923	0.2208		
Corrected Total	59	13.333			

TABLE 26
MEANS & LEAST SQUARE MEANS FOR DEGREE OF RELIGIOUS COMMITMENT WITH
VERDICT AS DEPENDENT
VARIABLE

Low Degree of Religious Commitment

<u>Sex</u>	<u>N</u>	<u>NGRI LS MEAN</u>	<u>STD ERROR LS MEAN</u>	<u>PROB > T</u>
Male	17	.7058	.1139	.0001
Female	16	.7500	.1174	.0001

Moderate Degree of Religious Commitment

Male	11	.5454	.1416	.0003
Female	12	.6666	.1356	.0001

High Degree of Religious Commitment

Male	2	0.0000	.3322	1.0000
Female	2	1.0000	.3322	.0040

TABLE 27
 DEGREE OF RELIGIOUS COMMITMENT WITH SENTENCE
 LENGTH AS DEPENDENT VARIABLE
CASE A (PMS)

<u>Source</u>	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F-Value</u>	<u>PR > F</u>
Relig.Commit.	2	536.46		0.50	.6079
Sex	1	244.37		0.46	.5021
ReligComm x Sex	1	154.56		0.29	.5931
Error	35	19597.33	531.35		
Corrected Total	39	19571.10			

RESEARCH QUESTION #4: Does knowledge of those demographic characteristics related to respondents' attitudes provide sufficient information to predict the respondents' verdict or sentencing decision?

To answer this question a step-wise multiple regression procedure was performed using first verdict as the dependent variable. The first step of the regression indicated that MAQ Factor I (menstruation is an event that is physically and psychologically debilitating) was the best predictor of verdict with an R^2 of .09. The second regression step indicated that knowledge of the respondent's educational level would be the next best model by bringing the R^2 to .16. In a third step, MAQ Factor I + Educational Level + Marital Status added a bit more, raising the R^2 to .19. Thus, the two-model variable is the best predictor, assuming no bias in subjects' reporting information. A high score on MAQ1, above-mean educational level, and single marital status were all predictive of a verdict of NGRI.

Predictors were also sought using sentence as the dependent variable. With MAQ Factor V entered first (menstruation is an event that should not and does not influence one's behavior), the R^2 obtained was .17. Occupational prestige entered second increased the R^2 to .28. Age level entered as a third step increased the R^2 to .33. Thus, a high score on MAQ5, low occupational prestige, and below-mean age level were all predictive of a longer sentence for the PMS defendant. Regression

analyses using verdict as the dependent variable are shown in Table 28 and with sentence as the dependent variable in Table 29.

POST-DELIBERATION QUESTIONNAIRE

General responses to the Post-Deliberation Questionnaire are shown in Table 30. The overwhelming majority of participants indicated that they thought the plea of NGRI was overused in our courts (93.9%). When asked if the courts should accept PMS as a medical condition that produces violent behavior in women, 39% of the 180 participants responded in the affirmative. However, only 24% believe that women with PMS should be relieved of criminal responsibility and be given lighter penal sentences.

The data were further analyzed for all three groups and then for Case A (PMS) separately. Means for the nine questionnaire items are shown in Table 31. Analyses of variance across all three groups revealed significant relationships for PDQ Items 1, 5 and 6 as reported below. All other items were shown to be nonsignificant for case, sex, or case x sex effects.

PDQ1 - How difficult was it for you to decide on the verdict?

With PDQ1 as the dependent variable, case was nonsignificant, $F(2,174) = 0.65$, $p > .5246$, as was sex of juror, $F(1,174) = 0.09$, $p > .7614$. However, the interaction of case x sex was significant,

TABLE 28

MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE - VERDICTSTEP 1 Variable MAQ1 Entered $R^2 = .093$

	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F</u>	<u>PROB > F</u>
Regression	1	1.250	1.250	6.00	0.0173
Error	58	12.082	0.208		
Total	59	13.333			

	<u>B Value</u>	<u>Std. Error</u>	<u>Type II SS</u>	<u>F</u>	<u>PROB > F</u>
Intercept	1.322				
MAQ1	-0.148	0.060	1.250	6.00	0.0173

STEP 2 Variable Education MS Entered $R^2 = 0.156$

	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F</u>	<u>PROB > F</u>
Regression	2	2.082	1.041	5.27	.0079
Error	57	11.251	0.197		
Total	59	13.333			

	<u>B Value</u>	<u>Std. Error</u>	<u>Type II SS</u>	<u>F</u>	<u>PROB > F</u>
Intercept	0.961				
MAQ1	-0.144	0.059	1.169	5.93	.0181
EducMS	0.237	0.115	0.831	4.21	.0447

STEP 3 Variable Marital Entered $R^2 = 0.192$

	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F</u>	<u>PROB > F</u>
Regression	3	2.558	0.852	4.43	.0074
Error	56	10.775	0.193		
Total	59	13.333			

	<u>B Value</u>	<u>Std. Error</u>	<u>Type II SS</u>	<u>F</u>	<u>PROB > F</u>
Intercept	1.148				
MAQ1	-0.127	0.0591	0.898	4.67	.0350
EducMS	0.244	0.1144	0.877	4.56	.0371
Marital	-0.219	0.1395	0.4759	2.47	.1214

TABLE 29

MAXIMUM R-SQUARE IMPROVEMENT FOR DEPENDENT VARIABLE - SENTENCESTEP 1 Variable MAQ5 Entered $R^2 = .172$

	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F</u>	<u>PROB > F</u>
Regression	1	3377.6	3377.63	7.93	.0077
Error	38	16193.4	426.1		
Total	39	19571.1			
	<u>B Value</u>	<u>Std. Error</u>	<u>Type II SS</u>	<u>F</u>	<u>PROB > F</u>
Intercept	-7.610				
MAQ5	8.899	3.16	3377.63	7.93	.0077

STEP 2 Variable OccupMS Entered $R^2 = .282$

	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F</u>	<u>PROB > F</u>
Regression	2	5515.9	2757.95	7.26	.0022
Error	37	14055.2	379.87		
Total	39	19571.1			
	<u>B Value</u>	<u>Std. Error</u>	<u>Type II SS</u>	<u>F</u>	<u>PROB > F</u>
Intercept	-32.384				
MAQ5	10.067	3.024	4207.90	11.08	.0020
OccupMS	15.536	6.548	2138.27	5.63	.0230

STEP 3 Variable Age Entered $R^2 = .330$

	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F</u>	<u>PROB > F</u>
Regression	3	6469.62	2156.54	5.93	.0022
Error	36	13101.47	363.93		
Total	39	19571.1			
	<u>B Value</u>	<u>Std. Error</u>	<u>Type II SS</u>	<u>F</u>	<u>PROB > F</u>
Intercept	-21.909				
MAQ5	11.397	3.072	5007.33	13.76	.0007
OccupMS	15.321	6.410	2078.59	5.71	.0222
AgeMS	-10.365	6.403	953.72	2.62	.1142

$F(2,174) = 4.81, p < .0093$. A least-squares means post-hoc analysis revealed that male jurors in Case B found it more difficult to decide on the verdict than female jurors in the same condition. These data are shown in Table 32, with least squares means shown in Table 33.

PDQ5 - How much control do you think the defendant had over her behavior?

As can be seen from Table 32, with PDQ5 as the dependent variable, there was a main effect for case, $F(2,174) = 3.43, p < .0344$. Neither sex, $F(1,174) = 1.94, p > .1764$, nor the interaction of case x sex, $F(2,174) = 0.48, p > .6211$, were significant. A least-squares means post-hoc analysis (Table 33) revealed that jurors in Case C (No Treatment History) thought the defendant had more control over her behavior than did jurors for Cases A or B.

PDQ6 - To what extent is the defendant personally responsible for her crime?

With PDQ6 as the dependent variable, case was again found to be significant, $F(2,174) = 4.02, p < .0196$. Neither sex of juror, $F(1,174) = 0.67, p > .4157$, nor the interaction of case x sex, $F(2,174) = 0.19, p > .8301$, were found to be significant. These data are also shown in Table 32. A least-squares means post-hoc analysis, shown in Table 33, revealed that jurors in Case C (No Treatment History) thought the defendant more personally responsible for her crime than did jurors for Cases A and B.

TABLE 30
General Responses to Post-Deliberation Questionnaire

	N CASE A <u>Low/High</u>		N CASE B <u>Low/High</u>		N CASE C <u>Low/High</u>	
(1) How difficult was it for you to decide on the verdict?	34	26	30	30	36	24
(2) How certain are you of the verdict?	16	44	13	47	15	45
(3) What was the extent of sympathy you felt for the defendant?	30	30	31	29	35	25
(4) How dangerous do you think the defendant is to society?	35	25	36	24	42	18
(5) How much control do you think the defendant had over her behavior?	27	33	36	24	22	38
(6) To what extent is the defendant personally responsible for her crime?	17	43	26	34	12	48
<hr/>						
	<u>Yes / No</u>		<u>Yes / No</u>		<u>Yes / No</u>	
(7) Do you believe that the plea of NGRI is overused in our courts?	57	3	56	4	56	4
(8) Should courts accept PMS as a medical condition that produces violent behavior in women?	27	33	23	37	20	40
— If <u>yes</u> , should women with PMS be relieved of criminal responsibility and be given lighter penal sentences? <u>Yes = 26</u> <u>No = 74</u>						
— If <u>No</u> , why?						
<u>37%</u> (a) There is insufficient medical evidence to prove that PMS causes violent behavior.						
<u>56%</u> (b) Mental instability should not be used to excuse criminal behavior.						
<u>19%</u> (c) Women and lawyers will abuse the principle.						
<u>2%</u> (d) It will prevent MD's and women from treating PMS as a serious medical problem.						
<u>7%</u> (e) The use of PMS as a legal defense is a hoax.						
	<u>Yes / No</u>		<u>Yes / No</u>		<u>Yes / No</u>	
(9) Brain tumors, diabetes and temporal lobe epilepsy produce hormonal changes that induce rage and are now used in some courts to excuse criminal actions. Should PMS be viewed the same?	26	34	22	38	20	40

TABLE 31
MEANS FOR POST-DELIBERATION QUESTIONNAIRE

<u>CASE</u>	<u>SEX</u>	<u>N</u>	<u>PDQ1</u>	<u>PDQ2</u>	<u>PDQ3</u>	<u>PDQ4</u>	<u>PDQ5</u>	<u>PDQ6</u>	<u>PDQ7</u>	<u>PDQ8</u>	<u>PDQ9</u>
A	Male	30	1.400	1.700	1.466	1.333	1.566	1.666	1.000	1.433	1.466
A	Female	30	1.466	1.766	1.533	1.500	1.533	1.766	1.100	1.666	1.666
B	Male	30	1.666	1.866	1.500	1.366	1.433	1.533	1.033	1.600	1.600
B	Female	30	1.333	1.700	1.466	1.433	1.366	1.600	1.100	1.633	1.666
C	Male	30	1.300	1.766	1.333	1.366	1.733	1.800	1.066	1.633	1.700
C	Female	30	1.500	1.733	1.500	1.233	1.533	1.800	1.066	1.700	1.633

TABLE 32
ANOVA FOR 3 GROUPS WITH PDQ1 AS DEPENDENT
VARIABLE

<u>Source</u>	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F-Value</u>	<u>PR > F</u>
Case	2	0.3111		0.65	.5246
Sex	1	0.0222		0.09	.7614
Case x Sex	2	2.3111		4.81	.0093
Error	174	41.8000	0.2042		
Corrected Total	179	44.4444			

ANOVA FOR 3 GROUPS WITH PDQ5 AS DEPENDENT
VARIABLE

<u>Source</u>	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F-Value</u>	<u>PR > F</u>
Case	2	1.6777		3.43	0.0344
Sex	1	0.4500		1.84	0.1764
Case x Sex	2	0.2333		0.48	0.6211
Error	174	42.5000	0.2442		
Corrected Total	179	44.8611			

ANOVA FOR 3 GROUPS WITH PDQ6 AS DEPENDENT
VARIABLE

<u>Source</u>	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F-Value</u>	<u>PR > F</u>
Case	2	1.6777		4.02	0.0196
Sex	1	0.1388		0.67	0.4157
Case x Sex	2	0.0777		0.19	0.8301
Error	174	36.3000	0.2086		
Corrected Total	179	38.19444			

TABLE 33
LEAST SQUARES MEANS FOR POST-DELIBERATION QUESTIONNAIRE

PDQ1 - How Difficult was it for you to decide on the verdict?

<u>Case</u>	<u>Sex</u>	<u>N</u>	<u>LS MEAN</u>	<u>STD ERROR LS MEAN</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
A	M	30	1.400	.0894	-	.60	0.04	0.60	0.43	0.43
A	F	30	1.466	.0894	0.60	-	0.11	0.29	0.19	0.79
B	M	30	1.666	.0894	0.04	0.11	-	0.01	0.01	0.19
B	F	30	1.333	.0894	0.60	0.30	0.01	-	0.80	0.19
C	M	30	1.300	.0894	0.43	1.19	0.01	0.80	-	0.16
C	F	30	1.500	.0894	0.43	0.80	0.19	0.19	0.12	-

PDQ5 - How much control do you think the defendant had over her behavior?

A	M	30	1.566	.0902	-	0.80	0.29	0.12	0.19	0.80
A	F	30	1.533	.0902	0.80	-	0.43	0.19	0.12	1.00
B	M	30	1.433	.0902	0.30	0.43	-	0.50	0.02	0.43
B	F	30	1.366	.0902	0.12	0.19	0.60	-	0.01	0.19
C	M	30	1.733	.0902	0.19	0.12	0.02	0.01	-	0.12
C	F	30	1.533	.0902	0.79	1.00	0.43	0.19	0.12	-

PDQ6 - To what extent is the defendant personally responsible for her crime?

A	M	30	1.666	.0834	-	0.40	0.26	0.57	0.26	0.26
A	F	30	1.766	.0834	0.40	-	0.05	0.16	0.78	0.78
B	M	30	1.533	.0834	0.26	0.05	-	0.57	0.03	0.03
B	F	30	1.600	.0834	0.57	0.16	0.57	-	0.09	0.09
C	M	30	1.800	.0834	0.26	0.78	0.02	0.09	-	1.00
C	F	30	1.800	.0834	0.26	0.78	0.02	0.09	1.00	-

CASE A (PMS) ANALYSIS - Post-Deliberation Questionnaire

Data for Case A were analyzed separately using t-tests and median splits for verdict and sentencing decisions to determine any significant relationships on PDQ items. Table 34 reveals that, with verdict as the dependent variable, PDQ items 3, 5, 6 and 9 were related to verdict decisions. Jurors who felt more sympathy for the defendant tended to render more verdicts of NGRI, $t = 2.98$, $p < .0048$. Those who felt the defendant had more control over her behavior, tended to render fewer verdicts of NGRI, $t = -5.591$, $p < .0001$. Similarly, those who felt the defendant was more personally responsible for her crime tended to render fewer NGRI verdicts, $t = -6.69$, $p < .0001$, as did those who thought that PMS should not be viewed the same as brain tumors, epilepsy, etc., to excuse criminal actions, $t = -9.84$, $p < .0001$.

With sentencing as the dependent variable, PDQ items 3, 4, 6 8 and 9 were shown to be related to length of sentence imposed on the defendant. These data are displayed in Table 35. Those who felt less sympathy for the defendant tended to impose longer sentences, $t = -2.84$, $p < .0077$, as did those who felt the defendant was more dangerous to society, $t = 1.71$, $p < .0930$. Finding the defendant more personally responsible for her crime was also related to longer sentences, $t = 3.29$, $p < .0017$, as was believing that PMS should not be accepted by the courts as a medical condition that produces violent behavior in women, $t = 2.29$, $p < .0286$. Those who felt that PMS should not be viewed the same as brain tumors or epilepsy, also imposed longer sentences, $t = 2.11$, $p < .0426$.

TABLE 34
CASE A (PMS) POST-DELIBERATION QUESTIONNAIRE WITH VERDICT AS DEPENDENT VARIABLE

PDQ1 - How difficult was it for you to decide on the verdict?

VERDICT	N	MEAN	STD DEV	STD ERROR	T	Df	PROB > T
0	20	1.500	.5129	.1147	0.7196	37.0	0.4763
1	40	1.400	.4961	.0784	0.7278	58.0	0.4697

PDQ2 - how certain are you of the verdict?

0	20	1.850	.3663	.0819	1.5756	47.8	0.1217
1	40	1.675	.4743	.0750	1.4461	58.0	0.1535

PDQ3 - What was the extent of sympathy you felt for the defendant?

0	20	1.750	.4442	.0993	2.976	41.7	0.0048
1	40	1.375	.4902	.0775	2.878	58.0	0.0056

PDQ4 - How dangerous do you think the defendant is to society?

0	20	1.400	.5026	.1124	-0.1819	38.0	0.8567
1	40	1.425	.5006	.0791	-0.1821	58.0	0.8561

PDQ5 - How much control do you think the defendant had over her behavior?

0	20	1.150	.3663	.0819	-5.590	44.8	0.0001
1	40	1.750	.4385	.0693	-5.263	58.0	0.0001

PDQ6 - To what extent is the defendant personally responsible for her crime?

0	20	1.250	.4442	.0993	-6.648	23.8	0.0001
1	40	1.950	.2207	.0348	-8.189	58.0	0.0001

PDQ7 - Do you believe that the plea of NGRI is overused in our courts?

0	20	1.050	.2236	.0500	0.000	37.7	1.0000
1	60	1.050	.2207	.0348	0.000	58.0	1.0000

PDQ8 - Should courts accept PMS as a medical condition that produces violent behavior in women?

0	20	1.050	.2236	.0500	-9.230	57.3	0.0001
1	40	1.800	.4058	.0640	-7.693	58.0	0.0001

PDQ9 - Should PMS be viewed the same as brain tumors and epilepsy to excuse criminal actions?

0	20	1.050	.2236	.0500	-9.841	56.5	0.0001
1	40	1.825	.3848	.0608	-8.310	58.0	0.0001

TABLE 35
CASE A (PMS) POST-DELIBERATION QUESTIONNAIRE WITH SENTENCE AS DEPENDENT VARIABLE

PDQ1 - How difficult was it for you to decide on the verdict?

SENTENCE	N	MEAN	STD DEV	STD ERROR	T	Df	PROB > T
High	17	1.412	.5073	.1231	-0.2076	29.1	0.8370
Low	43	1.441	.5024	.0766	-0.2085	58.0	0.8356

PDQ2- How certain are you of the verdict?

High	17	1.647	.4925	.1194	-0.8845	26.1	0.3845
Low	43	1.767	.4274	.0651	-0.9413	58.0	0.3504

PDQ3 - What was the extent of sympathy you felt for the defendant?

High	17	1.235	.4372	.1060	-2.838	33.1	0.0077
Low	43	1.604	.4947	.0754	-2.688	58.0	0.0094

PDQ4 - How dangerous do you think the defendant is to society?

High	17	1.588	.5072	.1230	1.670	28.1	0.1060
Low	43	1.348	.4822	.0735	1.707	58.0	0.0930

PDQ5 - How much control do you think the defendant had over her behavior?

High	17	1.705	.4696	.1139	1.581	31.5	0.1238
Low	43	1.488	.5057	.0771	1.530	58.0	0.1313

PDQ6 - To what extent is the defendant personally responsible for her crime?

High	17	1.941	.2425	.0588	3.297	54.8	0.0017
Low	43	1.627	.4890	.0745	2.512	58.0	0.0148

PDQ7 - Do you believe that the plea of NGRI is overused in our courts?

High	17	1.058	.2425	.0588	0.1832	26.3	0.8560
Low	43	1.045	.2130	.0324	0.1939	58.0	0.8469

PDQ8 - Should courts accept PMS as a medical condition that produces violent behavior in women?

High	17	1.764	.4372	.1060	2.2864	33.7	0.0286
Low	43	1.465	.5046	.0769	2.1472	58.0	0.0360

PDQ9 - Should PMS be viewed the same as brain tumors and epilepsy to excuse criminal actions?

High	17	1.764	.4372	.1060	2.1073	33.8	0.0426
Low	43	1.488	.5057	.0771	1.9772	58.0	0.0528

DISCUSSION

This study examined mock juror judgments of a hypothetical homicide defendant employing the PMS defense. This simulated trial resembled most real murder trials in that the fact that the defendant had killed the victim was not in controversy; rather, the evidence centered on the defendant's state of mind at the time. We included a case in which the defendant's mental disturbance had a clear-cut psychiatric component (Case B - paranoid schizophrenia) and one case in which it did not (Case C - temporary insanity, where there was no prior history of psychiatric illness). It was intuited that the same behavior would be responded to quite differently if it was thought to be due to PMS (Case A) than if it was attributed to some other cause that has traditionally been accepted as grounds for a verdict of NGRI. In this study, then, judgments of a woman's defense for spouse murder said to be due to the influence of PMS were compared with evaluations of defenses for spouse murder perceived to be due to other causes, which presumably varied in degree of blameworthiness and amount of prediction and control.

It is clear that the mock jurors rejected an insanity defense for the PMS defendant. Results showed that fully two-thirds of the jurors convicted the PMS defendant. It is also clear that jurors were more willing to render a NGRI (Not Guilty Reason of Insanity) verdict for the defendant with a documented "mental" illness. Fifty-three percent of the jurors accepted the insanity defense for the defendant with evidence of paranoid schizophrenia. Less

acceptable as an insanity defense was the Defendant in Case C - temporary insanity due to emotional trauma. Convictions were received from 71.7% of the mock jurors in Case C. This was not statistically significant from conviction rates in Case A, however.

Distinctions were less clear when sentencing decisions were viewed. The PMS defendant received significantly shorter sentencing than did defendants in the other two cases. These results indicate that jurors' refusal to accept the insanity defense for PMS clearly reflects their mistrust of the concept of a combination mental and physical disorder as an excusing condition. However, jurors also indicated that a PMS defendant, when judged as guilty, was deserving of less prison time.

In general, our data confirm previous research indicating a low rate of acceptance for the insanity defense. While there are no studies with which to compare these results directly, some comparison can be made with a study that compared verdict and sentencing decisions with various disorders. Ellsworth and colleagues (1984) looked at insanity defense acceptance rates for schizophrenia, epilepsy, and mental retardation. Fifty-six percent of these mock jurors accepted an insanity defense for the defendant with schizophrenia, with an average sentence of 22.6 years. When epilepsy was considered, 56% of the jurors convicted with an average sentence length of 20.0 years. In the third condition, the mentally retarded defendant received a 50 percent conviction

rate with an average sentence of 18.5 years. Thus, their jurors were willing to accept schizophrenia and mental retardation as equally deserving of an insanity defense, with the epilepsy case receiving fewer convictions. If epilepsy, which involves both the physical and mental components of disease, may be compared with PMS which is both a physical and psychologically based disorder, these numbers are quite similar to the present study. Further, when convicted, their defendants were given similar sentence lengths, with the exception of the schizophrenic defendant who received an average sentence of 22.6 years, compared to the schizophrenic defendant in the present study who received an average sentence of 37.4 years.

Prior to discussing the implications of these findings further, consideration will be given to public perception of the insanity defense. In contrast to voluminous literature concerning legal and psychiatric perspectives of the insanity plea, very little has been written on the public's perception of the defense. While the actual number of criminal defendants who plead "not guilty by reason of insanity" is relatively small (Stone, 1975), the amount of discussion and controversy generated by the insanity defense has been enormous. The idea that a person who has committed an atrocious crime can be acquitted on the grounds of insanity is disturbing to many people, and has been so at least since the time when the basic right-from-wrong standard for determining legal insanity was laid down by the British Common Law Courts following the M'Naughten case in 1843.

Misconceptions concerning the frequency of use and success of the insanity plea abound. Pasewark (1981) has demonstrated that the public vastly overestimates the frequency with which defendants successfully employ the insanity plea. In surveys of college students (Pasewark and Seidenzahl, 1979), legislators (Pasewark and Pantle, 1979), community residents, police officers, and mental health workers (Pasewark, Seidenzahl, & Pantle, 1981), large segments of each group opined that the NGRI plea was overused and abused. In a later nation-wide poll (Associated Press-National Broadcasting Company, 1981), comparable results were obtained with 87% of the sample indicating that "too many murderers are using the insanity plea to keep from going to prison."

In 1983, Jeffrey and Pasewark sought to determine if individual opinions concerning the overuse and abuse of the insanity defense could be altered by presenting them with the facts regarding its frequency and success. Their study consisted of 300 students and an equal number of community residents. Before being presented with the actual statistics, college students and community residents grossly overestimated the extent to which the insanity plea is used and its success rate. They also overwhelmingly believed that the plea is overused and abused. Following presentation of the actual use and success data, a significant alteration in a more favorable direction was observed. However, despite this shift in opinion, a substantial proportion of respondents still opined that the plea was overused and abused.

Further, there is evidence that the public holds inaccurate views of the defense itself. Hans and Slater (1983) asked a random sample of Delaware residents what they thought was the test of legal insanity. Only one of the 434 respondents gave a reasonably good approximation of the Model Penal Code definition of legal insanity. In addition, fully two-thirds of the sample "strongly agreed" that the insanity defense is a loophole that allows too many guilty people to go free. Similarly, jurors in one study estimated that 70% of the defendants who plead not guilty by reason of insanity are not "really" insane (Ellsworth, Bukaty, Cowan, and Thompson, 1984).

The findings of the present study support the findings above that indicate a perception that the insanity defense is a loophole. When asked if the plea of NGRI was overused in our courts, 93.9% of our mock jurors responded affirmatively. Thus, even though it is a relatively rare event (less than 1% of all NGRI pleas are successful), the public seems badly informed about the insanity defense and overly concerned about the application, use, and success of the plea. The findings of this study and others are important to consider since it is the public that serves as impetus for legal changes. The public's views also affect the legitimacy of the defense as well as verdicts in specific insanity cases. All these misconceptions may create negative views of the insanity defense. Furthermore, such perceptions undoubtedly affect jury decision-making. Although it is impossible to measure from

the present data, the jurors in our study could not have been immune from pre-existing views of the insanity defense. Simon (1967) has demonstrated that when juries decide cases their pre-existing views of the insanity defense interact with legal instructions, and may also be influenced by knowledge of the defendant's psychiatric history.

Such was the case in the present study which supports the finding that knowledge that a person has a history of psychological disturbance elicits a constellation of unfavorable opinions, stereotypic beliefs, and attitudes (Rabkin, 1972). Jurors in Case B (documented history of paranoid schizophrenia), while rendering the larger number of NGRI verdicts, also imposed the longest sentences. Previous attitudinal research has suggested a generally held negative attitude toward mental patients (Lamy, 1966; Silverman, Nelson, & Accardi, 1976; Wicas & Carluccio, 1971). Nunnally (1961) found the stigma associated with mental illness to be very general across social groups, with little relation to demographic variables such as age and educational levels.

Further, the results of the Smith, Sue and Padilla (1976) study indicate that mere knowledge of previous psychiatric hospitalization can strongly affect the judgments and perceptions of simulated jurors. Their results, however, seem to reflect a tolerant or sympathetic orientation toward the previously hospitalized defendant. A similar sympathetic orientation was shown by 256 respondents who were asked to comment on guilt and sentencing after reading newspaper stories describing a homicide.

In this study (Faulstich, 1984) a history of previous psychological problems was associated with more social approval of the NGRI plea. The findings of the present study both confirm and disconfirm these findings. Our jurors were more lenient with regard to acceptance of the insanity plea for the previously treated psychiatric patient, but showed less sympathy where sentencing was involved.

In explanation of this discordance, several social psychological concepts and theories provide a plausible basis for the apparent prejudice caused by the prior psychiatric evidence in terms of more severe sentencing. People's general tendency to underestimate the situational, relative to dispositional, determinants of behavior can be observed in the public's perception of "the person who commits a criminal act as responsible for that act, and further, the possessor of a criminal disposition" (Carroll & Payne, 1977, p. 193, emphasis in original; see also Jones & Nisbett, 1971; Kelley, 1971; Ross, 1977). One of the conditions under which people are more likely to attribute the causes of events to enduring personal dispositions than to environmental factors is when a particular individual has behaved the same on previous occasions (Jones & McGillis, 1976; Kelley, 1967; Kelley & Michela, 1980). Although such information may be logically redundant, it is regularly used by human decision makers to increase their confidence in their judgments (Saks & Kidd, 1980, 1981).

Therefore, mock jurors who know that the defendant has previously been treated for mental illness and is now charged with a crime would be more likely to make dispositional

attributions about the reason she committed the present offense than would subjects who have no prior record information. This, in turn, could result in both higher conviction rates and longer sentencing.

With specific regard to lack of acceptance of the insanity defense for the PMS defendant, and with recognition of the limits on the interpretation of these results, we offer the following speculative comments.

Lack of acceptance of the PMS defense may reflect a particular resentment against the idea of a combined mental and physical problem as an excuse for unacceptable behavior. A purely physical disorder may be seen as external to the person, creating a sort of necessity or duress, but a disorder with a degree of mental impairment may be seen as simply another manifestation of a weak or corrupted character. While evidence about the premenstrual syndrome was not admitted for the purpose of "excusing" the homicidal acts of a woman, it is likely that it was perceived as an "excuse" in these case materials. It is highly likely that some trappings of excuse are suggested to the jury through the testimony of the expert on PMS and its pertinence to the accused PMS woman's claim of temporary insanity. Some absolution of blame may be implicit as the expert explains the seemingly inevitable workings of the "syndrome" and its application to the defendant on trial. Given the overwhelming suspicion of jurors that the insanity defense is a "loophole designed to get murderers off the

hook," it is likely that the PMS defense was viewed by these mock jurors as yet another attempt to circumvent justice. This explanation is strengthened somewhat by the finding that jurors scoring higher on MAQ Factor 4 (menstruation is an event that can be easily predicted and anticipated), gave longer sentences to the PMS defendant. If the condition in question can be easily predicted and anticipated, then volitional control may be perceived by jurors as easily applied.

Based on the foregoing results there appears to be little evidence to suggest that PMS would be considered a viable defense in a capital case. However, the fact that the PMS defense was accepted on equal footing with a defense of temporary insanity due to extreme emotional trauma, coupled with the shorter sentencing for the PMS defendant, gives rise to possible consideration of a plea of diminished capacity. Diminished responsibility allows the jury to mitigate the punishment of a mentally disabled but sane offender in any case where the jury believes that the defendant is less culpable than her normal counterpart who commits the same criminal act. The criminal act is judged by the standards of the community - standards that a genuine PMS sufferer, during much of the month, can appreciate, understand, and obey. At the same time, the sentence would reflect the extenuating circumstances under which the crime was committed. This approach does not preclude a jail term, especially for repeat offenders. But it makes proper medical treatment a likelihood. It is a practical approach. The issue of guilt or innocence can be decided without reference

to the disorder, an approach that should be more satisfactory both to PMS defendants and those concerned that every hormonal imbalance may soon be offered as a defense.

The Influence of Attitudes and Background/Demographic Characteristics on Jurors' Decisions

In the pre-trial examination of prospective jurors, a lawyer's interest is not limited to the juror's background or social status. He is equally interested in the opinions and attitudes that the juror holds. In criminal trials involving a defense of insanity for PMS, the prospective juror's attitudes toward menstruation and the pre-menstrual experience of women could be important predictors of how the juror will respond to the issues in the trial he is about to hear.

Therefore, in this study efforts were made to relate attitudes to verdict and sentencing and the findings reported in this section rival in interest any previous data we have discussed. The distribution of scores in Tables 13 through 15 demonstrates that men and women jurors do hold different attitudes toward the issues in question and the verdict split certainly points up differences in willingness to accept an insanity defense for the PMS defendant. It is clear that there is a relationship between the two sets of results, with male jurors who believe menstruation to be psychologically and physically debilitating rendering significantly more NGRI verdicts. A belief

in the debilitating effects of menstruation indicates that males feel that women are more emotional, have difficulty performing their everyday activities, perform less well in sports, do not perform as well intellectually, are more tired, and should have lower expectations for themselves during menstruation.

Other studies have reported that males find menstruation more debilitating and painful than do women themselves (Brooks-Gunn & Ruble, 1977, 1980; Parlee, 1973; Ruble, Boggiano, & Brooks Gunn, 1982). Only one published study, however, has been able to show that such attitudes may be reflected in a willingness to "excuse" aberrant behavior on the part of menstruating women. In a study designed to examine how a woman is evaluated when she attributes an instance of negative social behavior to the approach or onset of menstruation, subjects who perceived menstruation as debilitating were less annoyed with the woman who used the menstrual excuse, in general regarding her as more blameless and less in control of her behavior (Boggiano, & Brooks-Gunn, 1982). The present study extends these findings to include antisocial behavior of a much more serious variety and indicates that judges are willing to excuse a wide variety of behavior said to be menstrual-related. The spectrum appears to extend from behavior as relatively benign as being impatient with a friend up to and including spouse murder. The present study also found that judges found the defendant in the PMS condition less personally responsible for her crime and had less control over her behavior than did the other defendants.

Denial of the effects of menstruation, as predicted, was related to more convictions for the PMS defendant. Denial of the effects of menstruation is associated with a belief that a woman who attributes her irritability to her approaching menstrual period **is neurotic; that a woman who complains of menstrual distress is** just using that as an excuse; and that premenstrual tension/irritability is all in a woman's head. It also includes a belief that most women make too much of the minor physiological effects of menstruation. Denial of the effects of menstruation was related to higher conviction rates for females but not for males. Since this attitudinal dimension (menstruation does not and should not influence one's behavior), is the polar opposite of Factor I (Menstruation is an event that is psychologically and physically debilitating) it is not surprising that in the present study this result obtained for females and males, respectively. Comparison of this finding with the forementioned study of menstrual excuses, reveals that their judges also **associated degree of denial with** harsher judgments (Ruble, Boggiano, & Brooks-Gunn, 1982).

The third attitudinal factor found to be associated with jurors' decision-making was MAQ Factor IV (Menstruation is an event which can be anticipated or predicted). Females scoring high on this factor rendered longer sentences to the PMS defendant. Scoring high on this factor reflects a belief that menstruation is an event that can be easily predicted by weight gain, preceding mood changes, backache, cramps, or other physical

signs. Thus, female jurors who believe that menstruation can be easily predicted were not influenced by this factor when deciding whether or not to convict the defendant, but took the predictability of menstruation into account when contemplating a suitable sentence.

That verdict and sentencing decisions are related to more general attitudes regarding menstruation is supported in the present study. The sex differences noted are probably best interpreted in terms of labeling and attribution processes, in conjunction with differential socialization concerning the nature of the menstrual experience. But why should an attribution of criminal behavior to PMS produce such differential responses from males and females? One answer is, on the surface at least, fairly obvious and trivial: Females have experience with the event and males do not. The implication of this difference is that males' learning is indirect and likely to reflect more general cultural beliefs concerning the menstrual cycle. These beliefs are known to be negative (Parlee, 1974, 1978), which may lead males to hold relatively negative attitudes (Clarke & Ruble, 1978; Parlee, 1974). In fact, even females report more negative beliefs when they are rating the symptoms of other women or of "women in general" than when they are responding for themselves (cf. Ruble & Brooks-Gunn, 1979), again suggesting that cultural beliefs may produce a negative bias.

On the other hand, many females are taught in health classes and in the booklets they receive as adolescents the importance of "acting normal" and not allowing possible menstrual symptoms to interfere with their daily routines (Brooks-Gunn & Ruble, 1980;

Whisnant, Brett, & Zegans, 1975). This information, as well as direct experience, teaches most women that menstruation is not as debilitating as cultural stereotypes may suggest, which could explain the female subjects' relatively lower level of acceptance for the PMS defense. While the foregoing interpretations of the sex differences noted are purely speculative at this time, further correlation of menstrual attitudes across a wide variety of behaviors may well strengthen the present finding that such sex differences are primarily due to subjects' underlying attitudes.

Background/Demographic Characteristics. In comparing jurors' verdicts and sentencing decisions we were estimating the probability that some jurors would be more favorable to the defendant than others. In addition to sex of juror, three other background or demographic characteristics were found to be related to jurors' verdict or sentencing decisions: level of education, degree of religious commitment, and a history of some sort of personal experience with PMS.

The trial lawyer's expectations about jurors' behavior in traditional criminal cases is to view education as one index of socioeconomic status. He then expects that the less educated jurors will be more likely to favor the defendant (Van Dyke, 1977). Jurors' education has been shown to be related to political affiliation and to income; more educated jurors are politically more conservative and earn more money (Stephan, 1975). Another study found that the more educated respondents had greater tolerance

for political deviation and were more accepting of nonconformity (Stouffer, 1975). Other studies support Stouffer's finding that the more educated the respondent the less authoritarian, the more tolerant, and the more accepting of nonconformity he is likely to be. If insanity is viewed as another manifestation of non-conformity, then we would anticipate a positive relation between education and pro-defendant verdicts. Similarly, we would expect persons with more education to have greater knowledge and understanding of mental illness, and therefore to be more sympathetic to the defense.

Our findings indicate that the higher educated jurors are more likely to accept an insanity plea. Jurors with a lower educational level rendered more convictions to the PMS defendant. These findings support the results reported in studies of social and political attitudes, however, they do not follow the results of Simon's 1967 study on the insanity defense. In that study there was no evidence that the more educated jurors were more likely to sympathize with a defense of insanity.

Male mock jurors who scored high on a degree of religious commitment scale were also more sympathetic to a defense of insanity for the PMS defendant. This prevalidated scale, which was included as part of the Background Data Sheet (Appendix D), assesses respondents level of commitment to religious values. Those scoring high on this scale have indicated a deep commitment to attending religious services, engaging in prayer, reading the

Bible, encouraging others to turn to religion, and listening to religious broadcasts. These values have been shown to be related to a perception of menstruation as restrictive, i.e., painful, affecting a woman's ability to think and to function as well at work, and a belief that menstruating women should make an effort to stay away from other people (Tampax Report, 1981). In the present study the belief that menstruation is physically and psychologically debilitating was found to be related to an acceptance of the insanity plea for male jurors, a finding which adds support to the cause of the sex differences discussed earlier.

Similarly, male mock jurors who reported that they had personal knowledge of PMS in spouse, girlfriend, or close relative were more likely to accept an insanity defense. Again, males are more likely to perceive menstruation as more debilitating than females themselves do. Our female jurors who reported that they themselves had experience with PMS had no greater tendency to render a not guilty by reason of insanity verdict for the PMS defendant.

Predictors. To test the hypothesis that attitudinal factors and background/demographic characteristics predict verdict and sentencing decisions, a step-wise multiple regression analyses was performed. A belief that menstruation is physically and psychologically debilitating, greater number of years of education, and single marital status were all predictive of an NGRI verdict. These three factors entered the equation and accounted for 19% of the variance. When the PMS defendant was convicted and length

of sentence was considered, three factors found to be predictive of a longer sentence were: denial of the effects of menstruation (MAQ Factor V), lower occupational prestige (a measure of socioeconomic status), and below-mean age level. These three factors accounted for 33% of the variance in sentencing decisions.

These results further support the importance of attitudes toward menstruation as influencing verdict and sentencing decisions. The tendency to view menstruation as debilitating and denial of the effects of menstruation accounted for more of the total variance than did other background or demographic factors. The fact that sex of mock juror failed to be a significant predictor of jurors' decisions suggests that the sex differences reported earlier were primarily due to differences in jurors' underlying attitudes. The finding that males' ratings were significantly higher than females' on the perceived debilitation factor supports this line of reasoning.

Obviously, however, this does not conclusively establish the causal role of the factors involved. Other studies that have attempted to assess the impact of extra-legal characteristics upon jurors' decisions have reported varying percentages of the variance depending on the variables chosen and the response scale employed. Hagan (1974) found that the combination of defendant's and victim's race accounted for 22% of the variance in capital rape trials. The socioeconomic status of defendants accounted for 4% of the variance. Savitsky and Sim (1974) reported that the

emotional state of the defendant accounted for approximately 33% of the variance in jurors' reactions, while Feild (1979) found that that a perception that victims had somehow precipitated the crime accounted for 11% of the variance in sentencing.

These results, as well as the findings from the present study, should be interpreted cautiously since variation is already limited at the start of a simulation through the control of other variables. Nevertheless, in an area where the knowledge base is non-existent, that attitudinal factors accounted for 17% of the variance in sentencing decisions and 9% of the variance in verdict decisions does shed some light on the extralegal characteristics of jurors that impacted their decisions. It is conceivable, however, that the predictors derived are differentially associated with some unmeasured factor which is the single real causal variable. Alternatively, the predictors obtained might be correlated with several different causal factors, each to a varying degree. While these explanations could not be conclusively discounted, it is quite difficult to imagine what these other causal factors might be, given the large number of predictors examined in the present study.

Implications for Jury Selection. Practically, the findings of this study indicate that attitudes toward menstruation may be used to disqualify people from jury service in cases where the defense is diminished capacity due to PMS. Since attitudes toward menstruation that include debilitation and restriction

are correlated with an acceptance of the insanity defense for PMS, this practice could result in juries that are more likely to acquit a PMS defendant than juries drawn from the whole spectrum of community attitudes would be. Similarly, denial of the effects of menstruation was predictive of lack of acceptance of the insanity defense for PMS and longer sentences. Again, if this information were used to select jurors, this practice could result in juries that are non-representative. However, it is important to remember that as far as the general predictive power of menstrual attitudes in jurors' decision making, the picture is too complicated to warrant general pronouncements of success or failure at this nascent stage of investigation. Based on these limited data we cannot say that we can predict an individual's verdict in a particular case with any confidence simply on the basis of his attitudes toward menstruation. In some cases it is likely that the attitude will have relatively little impact, in some cases a great deal, in some cases none at all. In some cases, for example, it may combine with other attitudes to create a very strong effect. Future research needs to address itself so that it can be shown that in the long run, over many relevant cases, and especially in cases where there is substantial evidence of the presence of PMS, attitudes toward menstruation have a predictable effect. Other attitudes, or combinations of attitudes, may have effects in other subsets of cases, particularly those involving lesser crimes. The relationship between individual

characteristics and verdicts is undoubtedly extremely complex. Given this state of affairs, it is clear that simplistic affirmations and simplistic denials of attitude-verdict relationships are out of place.

SUMMARY AND CONCLUSIONS

This investigation sought, as its principal focus, to assess the feasibility of utilizing PMS as a substantive defense in a capital case. Mock jurors overwhelmingly rejected an insanity defense for the PMS defendant. Two-thirds of the jurors convicted the PMS defendant. Jurors were more willing to render an NGRI (Not Guilty By Reason of Insanity) verdict for the defendant with a documented history of mental illness (Paranoid Schizophrenia). Conviction rates, however, were similar for the PMS defendant and the defendant who employed a defense of temporary insanity brought about by extreme emotional trauma. This finding, as well as the **fact that the PMS defendant received shorter sentences, led us to** speculate that the PMS defense, while perhaps not viable as a substantive defense, may be useful in cases of diminished capacity.

Responses to the PMS defense also varied as a function of more general attitudes concerning menstruation and sex of mock juror. Male jurors who believe menstruation to be psychologically and physically debilitating were more accepting of the insanity defense for the PMS defendant. Denial of the effects of menstruation was associated with higher conviction rates for female mock jurors. Longer sentences were obtained from female mock jurors who reported that menstruation is an event that can be easily predicted or anticipated. Other background/demographic variables shown to influence jurors' decision-making were level

of education, degree of religious commitment, and a history of personal experience with PMS. Finally, the results of the regression analysis revealed that factors predictive of an NGRI verdict for the PMS defendant included a higher level of education, a belief that menstruation is debilitating, and single marital status. Predictive of longer sentencing were denial of the effects of menstruation, lower occupational prestige, and below-mean age level.

These results were discussed in relation to previous reports on the lack of acceptance for an insanity defense and public misconceptions about its use and abuse. The sex differences noted were discussed in terms of labeling and attribution processes, in conjunction with differential socialization concerning the nature of the menstrual experience. The predictors obtained were discussed in relation to their usefulness in jury selection procedures.

This investigation represents the first time these issues have been addressed. Since that is the case it is important to offer caveats about generalizing from the laboratory microculture to the real world. It would seem unwise to further cloud the already difficult issue of criminal responsibility with an expanded insanity defense until further research has verified these results on other samples.

One point is worth mentioning, however, with regard to the use of the PMS defense, whether used as a substantive defense or in cases of diminished capacity. In a PMS case the justice of

individual trial outcomes must be considered as must any general costs resulting from an expansion of the insanity defense. But the implications of inappropriately using the empirical data extend even further. The impact of incorporating recognition of this link between behavior and biology into the law on general attitudes toward women must also be considered. The lack of behavioral control attributed to women around the time of menstruation has long been offered as a justification for not allowing women in positions of responsibility. Legal recognition of the lack of control concept may offer support to those who would use it as grounds for discrimination.

Nevertheless, new theories of insanity such as PMS, the Vietnam Veteran Syndrome and the Battered Woman Syndrome must be addressed by the courts. Historically, defendants have been held responsible for their actions unless they can prove that a disability prevented them from conforming to society's accepted standards of behavior. Defining those "disabilities" continues to be a point of debate. Insanity is the most accepted of these defenses, but in recent years it has come under sharp attack. Critics contend that it is often abused, and that many criminals who pose a continuing danger to society are freed on the basis of questionable expert testimony. Even defenders of the insanity defense, and of its related defenses, concede that it is sometimes misapplied. But they still argue that it would be unjust to hold individuals to a standard of

conduct that they are simply unable to meet. So the question for the judicial system becomes: at what point do the courts draw the line between a true disability and lesser conditions that many people must bear as part of everyday life?

Such sensitive problems must receive the courts' attention, often on extremely short notice with a minimum of expert assistance. Insanity is an issue in which complexity is as unavoidable as the emotion which surrounds it. As a result, it seems certain that answers to these questions will be neither easy nor universally popular.

Suggestions for Future Research

With the limitations noted, this study provides unique data about how the public may view the PMS defense. More work on the formation of jurors views and the relationship between those views and individual attitudes about menstruation may yield important results for our future understanding of the concept of legal insanity and its application in real-life cases. Future considerations might include:

- 1) Some effort should be made to determine whether, in fact, transparent demand characteristics have played a substantial role in this research. Conjectural

analysis about the influence of demand characteristics and social desirability needs to be supplanted by research.

- 2) With regard to the male/female differences obtained, the possibility exists that even if they could be equated on other dimensions, these subgroups of men and women might hold different views about what constitutes legal insanity that would influence their verdict and sentencing decisions. Some studies of insanity have noted that it is males who endorse a definition of legal insanity that includes a belief that the defendant could not tell right from wrong (Jeffrey and Pasewark, 1983). Gilligan (1982) has documented differences between men and women in their concept of morality and what constitutes moral behavior. She has argued that men appear to be more rule bound in their definition of moral behavior, while women would seem to take the context of the behavior into account in determining what is moral. Such differences might well have affected men's and women's attributions of the conditions under which defendants could be absolved from moral responsibility for their conduct. Future research could investigate the links between knowledge and views of legal insanity and moral reasoning.
- 3) In a similar vein, it may well be that attitudes toward criminal justice are more important predictors of

verdicts in insanity defense cases than are the general attitudes toward mental illness or menstruation.

It may be less that those who convict lack sympathy for people who are mentally disturbed or physically encumbered than that they fail to believe that the defendant really had anything wrong with her. The relevant attitudes may be those toward the insanity defense in particular, and toward criminal defendants and crime control in general, and not those toward mental illness or menstruation in general.

- 4) Greater usage of auxiliary dependent variables is recommended. More extensive probing of subjects is needed to discover the cognitive and/or emotional mechanisms that are operative.
- 5) An obvious limitation of the present analysis, as well as much of the previous simulation research, is the use of individuals making private decisions rather than groups making public decisions. The degree to which the results are misleading cannot be specified, although at least one experimental study has demonstrated that group decisions are invariably the same as the position initially held by the majority of its individuals (Nemeth, 1976). Until more research becomes available, however, it would be unwise to

assume that individual views of a PMS defense will not be affected in some way by the dynamics of small group decision-making processes. Given the sensitive nature of the PMS defense a study involving group process might prove more valuable in revealing the richness of social phenomena.

- 6) The differences in sentencing and guilt determination should be further explored. The assumption that there is a one-to-one correspondence between sentencing and guilt determination should be investigated. Future research in this area could focus on which characteristics of the defendant influence each type of dependent variable. For instance, it seems logical to suggest that a defendant's age might have more of an impact on sentencing than on guilt determination. Such hypotheses could be empirically tested.
- 7) Finally, the gap between the laboratory and courtroom can also be bridged by encouraging research projects that use a dual approach, gathering both simulation and field data on the same or a related issue. Given the eagerness of some legal experts to employ the PMS defense, such a project seems feasible. Such studies integrating the two research traditions are both needed and possible, and are likely to provide the surest base for confident inference.

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APPENDIX A

INFORMED CONSENT
STUDY OF JUDICIAL DECISION-MAKING

The purpose of this study is to learn more about jury decisions. You will be asked to complete several questionnaires. You are asked to sign this sheet to show that you consent to complete these questionnaires. Your participation is completely voluntary. You may withdraw from the study at any time. Your signature is for consent purposes only. Your answers are anonymous.

I understand that participation in this study is voluntary. I understand that I may withdraw from the study at any time. I also understand that participation in this study will not benefit me directly.

My answers will be anonymous and combined with those of others for statistical purposes only.

Signature

Date

APPENDIX B

INSTRUCTIONS TO PARTICIPANTS

This is an experiment on your ability to role play, that is, to predict how you would behave in a novel situation. Your task today is to place yourself in the role of a juror and to make a number of decisions in a criminal trial. It is crucial that you really place yourself in the role of juror and react just as you would were you actually in the courtroom. Please read very carefully all of the instructions and materials in your booklet.

You will first be asked to complete two questionnaires before going on to read a narrative of a criminal jury trial and to render a verdict. You will then be asked to complete another questionnaire. You may take as long as you wish in completing these questionnaires. After you have finished, the experimenter will sign a credit slip so that you may receive experimental points for having participated in the study.

Thank you very much for your cooperation.

Marjorie C. Donohoe
Marjorie C. Donohoe, M.A.
Investigator

APPENDIX C

MENSTRUAL ATTITUDE QUESTIONNAIRE

Please read the sentences below and tell us how much you agree or disagree with each one. If you disagree strongly, circle "1". If you agree strongly, circle "7".

1	2	3	4	5	6	7
Disagree Strongly	Moderately Disagree	Disagree Slightly	Neither Agree Nor Disagree	Agree Slightly	Moderately Agree	Strongly Agree
1. As soon as a person shows signs of mental disturbance he should be hospitalized.	1	2	3	4	5	6
2. A woman's performance in sports is not affected negatively by menstruation (her period).	1	2	3	4	5	6
3. Mental illness is an illness like any other.	1	2	3	4	5	6
4. Menstruation is just something women have to put up with.	1	2	3	4	5	6
5. Only persons with considerable psychiatric training should be allowed to form close relationships with mental patients.	1	2	3	4	5	6
6. Menstruation is a reoccurring affirmation of womanhood.	1	2	3	4	5	6
7. It is best to prevent the more disturbed patients from mixing with those who are less sick.	1	2	3	4	5	6
8. Women just have to accept the fact that they may not perform as well when they are menstruating.	1	2	3	4	5	6
9. A woman can tell when her period is approaching because of breast tenderness, backache, cramps, or other physical signs.	1	2	3	4	5	6
10. Close association with mentally ill people is liable to make even a normal person break down.	1	2	3	4	5	6
11. Others should not be critical of a woman who is easily upset before or during her menstrual period.	1	2	3	4	5	6
12. Women learn to anticipate their menstrual periods by the mood changes which precede it.	1	2	3	4	5	6
13. One of the main causes of mental illness is lack of moral strength.	1	2	3	4	5	6
14. Menstruation allows women to be more aware of their bodies.	1	2	3	4	5	6
15. Abnormal people are ruled by their emotions; normal people by their reason.	1	2	3	4	5	6

	1	2	3	4	5	6	7				
	Disagree Strongly	Moderately Disagree	Disagree Slightly	Neither Agree Nor Disagree	Agree Slightly	Moderately Agree	Strongly Agree				
16. Most women realize that they cannot expect as much of themselves during menstruation compared to the rest of the month.					1	2	3	4	5	6	7
17. In some ways women enjoy their menstrual periods.					1	2	3	4	5	6	7
18. We can make some improvements, but by and large the conditions of mental hospital wards are about as good as they can be considering the type of disturbed patient living there.					1	2	3	4	5	6	7
19. Women are more tired than usual when menstruating.					1	2	3	4	5	6	7
20. We should be sympathetic with mental patients, but we cannot expect to understand their odd behavior.					1	2	3	4	5	6	7
21. Cramps are bothersome only if women pay attention to them.					1	2	3	4	5	6	7
22. A woman's moods are not influenced in any major way by the phase of the menstrual cycle.					1	2	3	4	5	6	7
23. When a patient is discharged from a hospital, he can be expected to carry out his responsibilities as a citizen.					1	2	3	4	5	6	7
24. Menstruation provides a way for women to keep in touch with their bodies.					1	2	3	4	5	6	7
25. The menstrual period affects how well a woman does on intellectual tasks.					1	2	3	4	5	6	7
26. A mental patient is in no position to make decisions about even everyday living problems.					1	2	3	4	5	6	7
27. Men have a real advantage in not having the monthly interruption of a menstrual period.					1	2	3	4	5	6	7
28. Patients are often kept in the hospital long after they are well enough to get along in the community.					1	2	3	4	5	6	7
29. Women expect extra consideration from their friends when they are menstruating.					1	2	3	4	5	6	7
30. There is something about mentally ill people that makes it easy to tell them from normal people.					1	2	3	4	5	6	7
31. A woman who attributes her irritability to her approaching period is neurotic.					1	2	3	4	5	6	7

	1	2	3	4	5	6	7
	Disagree Strongly	Moderately Disagree	Disagree Slightly	Neither Agree Nor Disagree	Agree Slightly	Moderately Agree	Strongly Agree
32. Women are more easily upset during their premenstrual or menstrual periods than at other times of the month.	1	2	3	4	5	6	7
33. Few, if any, mental patients are capable of real friendliness.	1	2	3	4	5	6	7
34. Menstruation is an obvious example of the rhythmicity which pervades all of life.	1	2	3	4	5	6	7
35. Most women hope that it will be possible someday to get a menstrual period over within a few minutes.	1	2	3	4	5	6	7
36. There is hardly a mental patient who isn't liable to attack you unless you take extreme precautions.	1	2	3	4	5	6	7
37. The physiological effects of menstruation are normally no greater than other usual fluctuations in physical state.	1	2	3	4	5	6	7
38. Mental patients who fail to recover have only themselves to blame; in most cases they have just not tried hard enough.	1	2	3	4	5	6	7
39. Most women show a weight gain just before or during menstruation.	1	2	3	4	5	6	7
40. The recurrent monthly flow of menstruation is an external indication of a woman's general good health.	1	2	3	4	5	6	7
41. "Once a schizophrenic, always a schizophrenic."	1	2	3	4	5	6	7
42. Women barely notice the minor physiological effects of their menstrual periods.	1	2	3	4	5	6	7
43. Mental patients need the same kind of control and discipline as an untrained child.	1	2	3	4	5	6	7
44. Menstruation can adversely affect a woman's performance in sports.	1	2	3	4	5	6	7
45. The only thing menstruation is good for is to let a woman know she's not pregnant.	1	2	3	4	5	6	7
46. Women feel as fit during menstruation as they do any other time of the month.	1	2	3	4	5	6	7
47. With few exceptions most mental patients haven't the ability to tell right from wrong.	1	2	3	4	5	6	7
48. Women who complain of menstrual distress are just using that as an excuse.	1	2	3	4	5	6	7

	1	2	3	4	5	6	7				
	Disagree Strongly	Moderately Disagree	Disagree Slightly	Neither Agree Nor Disagree	Agree Slightly	Moderately Agree	Agree Strongly				
49. In experimenting with new methods of mental patient treatment, hospitals must consider, first and foremost, the safety of patients and personnel.					1	2	3	4	5	6	7
50. Most women don't allow the fact that they're menstruating to interfere with their usual activities.					1	2	3	4	5	6	7
51. Mental illness can be inherited from one's parents.					1	2	3	4	5	6	7
52. Premenstrual tension and irritability are all in a woman's head.					1	2	3	4	5	6	7
53. Mental patients cannot be held responsible for acts committed when they are ill.					1	2	3	4	5	6	7
54. Avoiding certain activities during menstruation is often very wise.					1	2	3	4	5	6	7
55. People who have been hospitalized for mental illness should not be allowed to vote.					1	2	3	4	5	6	7
56. Most women make too much of the minor physiological effects of menstruation.					1	2	3	4	5	6	7
57. We can control some of the behavior of those who are mentally ill, but we cannot ever cure them.					1	2	3	4	5	6	7
58. Mental hospitals should be located in thinly populated rural areas so that the patients will not disturb the local citizens.					1	2	3	4	5	6	7

APPENDIX D
BACKGROUND/DEMOGRAPHIC DATA SHEET

Please answer the following questions: Male _____ Female _____

Married _____ Single _____ Age _____ Years of Education _____

1. If you are employed, what is your occupation? _____
If you are not currently employed, what is the occupation of the head of your household (spouse, parent)? _____

2. How would you describe your view on most political matters? Generally, do you think of yourself as a liberal, moderate, or conservative? Check one.
Liberal _____ Moderate _____ Conservative _____

3. What is your religious preference?
Catholic _____ Protestant _____ Jewish _____ Other (Specify) _____

4. Below is a list of religious activities and experiences. Indicate how frequently you do each:

	<u>Frequently</u>	<u>Occasionally</u>	<u>Never</u>
(a) Attending religious services _____			
(b) Engaging in prayer _____			
(c) Reading the Bible _____			
(d) Encouraging others to turn to religion _____			
(e) Listening to religious broadcasts _____			

5. Which of the following do you believe are morally wrong, and which do you think are not moral issues? Please indicate with a check mark.

	<u>Morally Wrong</u>	<u>Not a Moral Issue</u>
Abortion _____		
Smoking Marihuana _____		
Homosexuality _____		
Sex Between Two Single People _____		

6. Do you, or does someone close to you, have premenstrual syndrome (a hormonally-related disorder that can cause temporary disability in some women)?

Yes _____ No _____

If yes, please indicate:

Myself _____
Spouse _____
Relative _____
Close Friend _____

7. Have you, or has someone close to you, ever been treated and/or hospitalized for a mental or emotional disorder?

Yes _____ No _____

If yes, please indicate: Myself _____ Relative _____
Spouse _____ Close Friend _____

APPENDIX E

SCORING INFORMATION FOR THE BACKGROUND DATA SHEET:

- (1) Age
- (2) Sex, scored 1 = female; 2 = male
- (3) Years of Education
- (4) Marital Status - scored 1 = single; 2 = married
- (5) Personal experience with PMS or knowledge of PMS in spouse, close friend, or other relative, scored 1 = yes, 2 = no.
- (6) Occupational Prestige Scale - derived from Reiss, 1961.
- (7) Degree of Religious Commitment - the five items that form this scale are scored on a three point-scale (frequently, occasionally, never). Respondents who reported that "frequently" they do four or five of these activities were assigned a score of high. Those who frequently do two or three of the activities were assigned a score of "moderate" and those who do one or none were assigned a score of "low."
- (8) Moral Absolutism Scale - respondents who reported that all four are morally wrong were assigned a value of "very high," those who thought three out of the four were wrong were assigned a value of "high," and so forth down to those who thought none are morally wrong, who were assigned a score of "very low."
- (9) Political Affiliation - this variable was scored, 1 = liberal; 2 = moderate; and 3 = conservative.

APPENDIX F
CASE SUMMARIES

JUDGE'S INTRODUCTION

Ladies and gentlemen, you have been impaneled as a criminal trial jury. What you are about to read are the attorney's final arguments regarding the trial of Mrs. Betty Snyder, who is accused of murdering her husband on April 17, 1984. Mrs. Snyder has pleaded Not Guilty Due to Reason of Insanity.

Please attend very carefully to all the facts of the case. It is important that you set aside biases and render a verdict solely on the evidence, just as a real juror would do. Following the attorney's presentations, I will instruct you on the verdict and sentencing guidelines for this offense.

CASE A: DEFENSE ATTORNEY

Ladies and gentlemen of the jury, allow me some time to summarize this case from the defendant's point of view. Mrs. Betty Snyder, a 27 year-old woman employed as an accountant, is accused of murdering her husband, John, on the evening of April 17, 1984, by shooting him with the 38-caliber pistol she had purchased earlier that day. Mrs. Snyder does not deny firing the fatal shot; that fact is not in contention today. She has entered a plea of Not Guilty Due to Reason of Insanity - a case of temporary insanity caused by Premenstrual Syndrome (a hormone-related medical condition). Now, Betty Snyder's actions are not that difficult to understand, contrary to what the prosecuting attorney might allege.

Let's review the facts of this case for a moment. On the morning of the shooting the defendant's husband had informed her that he had been having an affair with his secretary. That he had, in fact, fallen in love with her and wanted a divorce from Mrs. Snyder so that he could be free to remarry. There followed a loud and emotionally charged argument which ended with Mr. Snyder storming out of the house. Betty Snyder was apparently so upset that she called her place of employment and told them she would not be at work that day. As the day wore on Mrs. Snyder realized that her menstrual period was approaching. Tearful, and feeling more and more out of control with despair and rage, she attempted to phone Dr. Freedman, the gynecologist who had been treating her

for premenstrual syndrome, but was unable to reach him. She attempted to calm herself but could not dismiss her husband's betrayal from her mind. Subsequently, she drove to a local gunshop and purchased a 38-caliber pistol, telling the clerk that she needed it for protection. When she returned with the gun she found that her husband was inside packing a suitcase. Seated on the sofa was his secretary, waiting for him to finish packing. Mrs. Snyder, with the gun in her hand, entered the bedroom and she and her husband began to argue. She begged him not to leave her, but he kept repeating that he no longer loved her and only wanted to be rid of her. She has testified that she became so enraged and overcome with emotion that, somehow, the gun discharged, fatally wounding Mr. Snyder.

Now let me stop here and review Mrs. Snyder's mental state for you. She had been suffering from premenstrual syndrome for nearly a year. You have heard expert testimony from Dr. Freedman, the gynecologist assigned to her case that Mrs. Snyder suffered from a severe form of PMS characterized by wildly fluctuating mood swings, irrationality, mental confusion, anxiety, depression, headache, tearfulness, and explosive behavior. Although Mrs. Snyder had sought help for her condition when she first learned of the reason for her erratic behavior, her symptoms had only partially been relieved, and she was still subject to intense emotional arousal 3 - 4 days before the onset of her menstrual period. Let me also remind you, ladies and gentlemen of the jury, that you heard the expert testimony of an endocrinologist, Dr. Harding,

who examined Mrs. Snyder and reviewed her medical records, and he, too, testified that she had a severe form of PMS. He also stated that, although the condition was extremely rare, some women were known to become insane during the premenstrual phases of their cycles. Although he could not state precisely whether or not Mrs. Snyder was suffering from PMS at the time of the crime, he did state that it was quite likely, given the dates of her last period which had been recorded by Dr. Freedman's secretary.

Now, I'd like the court stenographer to read the testimony of Dr. Roland Jones, the psychiatrist who examined Mrs. Snyder following the shooting.

DEFENSE ATTORNEY: Doctor, I direct your attention to the fact that there is filed in this case a report which is signed by Dr. Harding, who is the Director of the Women's Clinic, dated as of May 27, 1984, and that report is made in response to a direction of this court. In the report made to this court, Dr. Harding states: We conclude that Betty Snyder is suffering from a psychophysiological disorder of long-standing that has resulted, on occasion, in severe psychological disturbance, and that the crime with which she is charged was the product of this mental disease. Now, Doctor Jones, when you examined the defendant did you come to the same conclusion that the offense that is complained of here was the product of the defendant's disease?

WITNESS: It seems to me that the term "product" of a disease as the term is conventionally used, is not quite applicable

here; in the sense that the defendant's behavior is really almost a symptom of an underlying illness; in other words, the behavior is so closely connected with the illness that one cannot think of it as being a result of the illness, but as a manifestation of a medical disorder with psychological overtones. I can definitely say this - the PMS did lower somewhat Mrs. Snyder's capacity to control her conduct.

Lastly, ladies and gentlemen, you have heard the defendant herself recount her physical and emotional state on the day of the shooting. You have heard her testify, and I remind you that it was under oath, that her PMS symptoms were so severe on that day, and her feelings so highly aroused that, coupled with the news of her husband's betrayal, it was more than she could stand. She has assured the court that she purchased a gun that day for the sole purpose of killing herself. Let me also remind you of the testimony given by Mrs. Snyder's sister who testified that over the course of the last year her sister had exhibited a Dr. Jekyll-Mr. Hyde personality, that for three weeks out of every month she was calm and collected and then, for no outward reason, she would turn into a shrew, becoming argumentative and irrational.

Now the prosecution may contend that premeditation was involved in this tragic act, but I assure you, ladies and gentlemen of the jury, Mrs. Snyder had no such plan in mind. The level of stress caused by her medical condition, coupled with the stress of an impending separation from the man she loved, was of such intensity that her judgment was impaired and she could not have consciously

planned such an act. While the prosecution might argue that the defendant was a cold, calculating, jealous woman who only shot her husband in a fit of rage because he was leaving her for another woman, you know, after hearing all the testimony that this was not what happened. You have witnessed Mrs. Snyder's remorse and extreme anguish over the events preceding the trial. She truly loved her husband, but, because of her temporary state of insanity induced by her medical condition, she was unable to control her behavior. Her behavior was no more under her control than would be that of an epileptic. She is not a murderess, this is a woman who was the victim of her own bodily dysfunction, for which she cannot and should not be held responsible.

For the loss of control resulting in the death of John Snyder, Betty Snyder is truly repentant. But she is not guilty of murder, because she was suffering from a mental defect at the time of the murder. For this she should not experience further disruption of an otherwise spotless record of regard for our legal system and decent participation in our community. I ask that you deal with her fairly. She does not ask for approval of her actions, she asks for compassion. I ask that you judge her Not Guilty Due to Reason of Insanity and thus allow her to receive the treatment she needs to return her to society. The purpose of justice will not be served by a heartless and rash sentence.

CASE A: PROSECUTION ATTORNEY

Ladies and gentlemen of the jury, the issue before you today is not whether Betty Snyder committed murder the night of April 17th. That fact is not in dispute. She has admitted firing the shot that murdered John Snyder. The sole issue before you today is her mental state at the time of the offense. And it is up to you to decide whether the defendant is Guilty as charged or Not Guilty Due to Reason of Insanity. I would like to review the facts of the case so that you might consider the implications of your decision.

On the day of the shooting Betty Snyder purchased the 38-calibre pistol that was used to murder her husband. You have heard her testify that she bought the gun for the sole purpose of killing herself, so overcome was she by her husband's admittance of infidelity and threat to leave her. Are we to believe her? When the clerk who sold her the gun that day was asked, under oath, his impressions of Mrs. Snyder's behavior, he indicated that she appeared calm and collected. You have also heard the testimony of Monica Sellers, the victim's secretary, who witnessed the entire episode. By her account, Mrs. Snyder entered the home, went into the bedroom where John Snyder was packing, and after a few moments a shot rang out and John Snyder fell dead. Monica Sellers told you that Betty Snyder was very calm. That she called the ambulance and then walked coolly to her car and drove herself to the nearest police station and surrendered herself. Ladies and gentlemen, these were not the wild, impulsive behaviors of a woman under the influence of a mental defect brought on by a medical condition. Rather, they were the carefully planned actions of a cold-blooded killer.

I suggest to you that, with purpose, conviction, and full knowledge of the nature of her actions, Betty Snyder deliberately fired the shot with every intention of killing her husband. For this, ladies and gentlemen, she must be punished with the full strength of the law.

Let us examine the defense points. Now the entire defense argument rests on Mrs. Snyder's history of severe premenstrual syndrome. This defense of temporary insanity brought on by a hormonal condition is not only inadequate but carries with it the implication that the death of John Snyder somehow falls within the category of justifiable homicide. Ladies and gentlemen, this is an outrageous and morally insulting notion.

Mrs. Snyder's marital circumstances, while unfortunate, are not unique in our times. There is no reason to assume that Betty Snyder was more distressed than other women who have found themselves in similar circumstances and have, somehow, managed to restrain themselves, seeking more appropriate solutions to their marital problems.

Now, to refresh your memories, let me have the court stenographer read the cross-examination of Dr. Jones, who testified as to Mrs. Snyder's mental state on the day of the shooting:

PROSECUTING ATTORNEY: Doctor, would you say the defendant would not have committed the crime in question if she had not been under the influence of premenstrual syndrome?

WITNESS: Well, that's not easy to say, put that way. All I can say is that her condition did affect her capacity to control her conduct.

PROSECUTION ATTORNEY: Then, doctor, you cannot definitely say that the crime would not have occurred if it had not been for the defendant's

premenstrual condition?

WITNESS: Of course not. Murders do happen; a mentally healthy woman could commit murder [Interruption]

JUDGE: Doctor, let me repeat the question. Would you say that the defendant's criminal action on the night of April 17th, was a product, that is, a direct consequence of her premenstrual condition and thus of her mental condition?

WITNESS: Your Honor, concerning the defendant's behavior on that particular night, well I'm afraid that I just couldn't testify to that. As I said before, however, from what I've observed of the symptoms of the defendant's illness I would say that her actions were certainly influenced by her premenstrual syndrome.

Ladies and gentlemen, you've heard the testimony. The defendant murdered her husband. I say to you that she is feigning PMS in order to escape responsibility for her crime. She has learned to depend on PMS to extricate herself from difficult situations; at home, at work, and now, when she is facing criminal charges.

This community has been deprived of the contribution of a prominent and influential member. The defense would have you believe that this loss is due to an understandable loss of control on the part of the defendant brought on by her hormonal disorder. The defense would also have you believe that this behavior is so understandable and only momentary, that Betty Snyder should not be punished severely. The state, however, experiences considerable difficulty understanding Betty Snyder's actions, questions the transitory nature of her behavior, and further wonders if a woman who is capable of such

absolute disregard for normal human restraints should be quickly reinstated in our community with an "understanding" pat on the back and some quickie form of treatment. We contend, ladies and gentlemen, that regardless of Betty Snyder's former law-abiding history, she has engaged in a criminal act and can now only be regarded as a criminal. This woman has demonstrated a capacity for violence which cannot be ignored and certainly should not be reinforced. And it is imperative that you, as representatives of our social justice system, reaffirm the principles inherent to that system and return a Guilty verdict.

In good conscience, I can only ask that you sentence her as severely as the law allows for this offense.

CASE B: DEFENSE ATTORNEY

Ladies and gentlemen of the jury, allow me some time to summarize this case from the defendant's point of view. Mrs. Betty Snyder, a 27 year-old woman employed as an accountant, is accused of murdering her husband, John, on the evening of April 17, 1984, by shooting him with the 38-caliber pistol she had purchased earlier that day. Mrs. Snyder does not deny firing the fatal shot; that fact is not in contention today. She has entered a plea of Not Guilty Due to Reason of Insanity. Betty Snyder's experiences are not that difficult to understand, contrary to what the prosecuting attorney might allege.

Let's review the facts of this case for a moment. On the morning of the shooting the defendant's husband had informed her that he had been having an affair with his secretary. That he had, in fact, fallen in love with her and wanted a divorce from Mrs. Snyder so that he could be free to remarry. There followed a loud and emotionally-charged argument which ended with Mr. Snyder storming out of the house. Betty Snyder was apparently so upset that she called her place of employment and told them she would not be at work that day. As the day wore on Mrs. Snyder realized that she was becoming more and more out of control. Tearful, and grappling with despair and rage, she attempted to contact her psychiatrist, Dr. Foster, who had been treating her for the past three years, but she was unable to reach him. She attempted to calm herself but could not dismiss her husband's

betrayal from her mind. Subsequently, she drove to a local gunshop and purchased a 38-caliber pistol, telling the clerk that she needed it for protection. When she returned with the gun she found that her husband was inside packing a suitcase. Seated on the sofa was his secretary, apparently waiting for him to finish packing. Mrs. Snyder, with the gun in her hand, entered the bedroom and she and her husband began to argue. She begged him not to leave her, but he kept repeating that he no longer loved her and only wanted to be rid of her. She has testified that she became so enraged and overcome with emotion that, somehow, the gun discharged, fatally wounding Mr. Snyder.

Now let me stop here and review Betty Snyder's mental state for you. Three years ago she suffered a nervous breakdown and was hospitalized in a private psychiatric facility for more than two months. The psychiatrist who was assigned to her case at that time indicated in his report to the court that Betty Snyder was suffering from paranoid delusions, that she thought people were attempting to poison her food and that the City drinking water had been poisoned with the express intent of causing her death. When she attempted to break in to speak to the Mayor, who she thought was her intended assassin, she was arrested by the police and brought to the hospital for observation. After her release from the hospital she began to see Dr. Foster on an out-patient basis. You have heard Dr. Foster testify that Betty Snyder was a paranoid schizophrenic whose behavior was under control by virtue of antipsychotic medication. He indicated that her response over

the previous three years had been excellent and that she had been relatively symptom free up until the time of the murder of her husband.

Now, I'd like the stenographer to read the testimony of Dr. Osmond, the psychiatrist who examined Mrs. Snyder following the shooting.

DEFENSE ATTORNEY: Doctor, I direct your attention to the fact that there is filed in this case a report which is signed by Dr. Harding, who is the Director of Belgrade State Hospital, dated as of May 27, 1984, and that report is made in response to a direction of this court. In the report made to this court, Dr. Harding states: We conclude that Betty Snyder is suffering from paranoid schizophrenia of a long-standing nature, and that the crime with which she is charged was the product of this mental disease. Now, Dr. Osmond, when you examined the defendant did you come to the same conclusion that the offense that is complained of here was the product of the defendant's disease?

WITNESS: It seems to me that the term "product" of a disease as the term is conventionally used, is not quite applicable here; in the sense that the defendant's behavior is really almost a symptom of an underlying illness; in other words, the behavior is so closely connected with the illness that one cannot think of it as being a result of the illness, but as a manifestation of a biochemical disorder with psychological overtones. I can definitely say this - her mental illness did lower somewhat Mrs. Snyder's capacity to control her conduct.

Lastly, you heard the defendant herself account her mental state on the day of the shooting. She testified, under oath, that her thoughts were jumbled, that she couldn't concentrate, was feeling great despair and rage toward her husband, and that it was more than she could stand. She has assured the court that she purchased a gun that day for the sole purpose of killing herself and putting an end to her torment.

Now the prosecution may contend that premeditation was involved in this tragic act, but I assure you, ladies and gentlemen of the jury, Mrs. Snyder had no such plan in mind. The shooting was a direct result of an "irresistible impulse," feelings so powerful that she could not control herself. While the prosecution might argue that the defendant was a cold, calculating, jealous woman who only shot her husband in a fit of rage because he was leaving her for another woman, you know, after hearing all the testimony, that this was not what happened. You have heard expert testimony regarding Betty Snyder's history of mental impairment. I suggest to you, ladies and gentlemen, that she was under the influence of that same mental defect when she fired that gun. You have witnessed Mrs. Snyder's remorse and extreme anguish over the events preceding the trial. She truly loved her husband, but, because of her mental disease, was unable to control her behavior. She is not a murderess, this is a woman suffering from an illness, for which she cannot and should not be held accountable.

For the loss of control resulting in the death of John Snyder, Betty Snyder is truly repentant. But she is not guilty of

murder because she was suffering from a mental defect at the time of the crime. For this she should not experience further suffering. I ask that you deal with her fairly. She does not ask for approval of her actions, she asks for compassion. I ask that you judge her Not Guilty Due to Reason of Insanity and thus allow her to receive the treatment she needs to return her to society. The purpose of justice will not be served by a heartless and rash sentence.

CASE B: PROSECUTION ATTORNEY

Ladies and gentlemen of the jury, the issue before you today is not whether Betty Snyder committed murder the night of April 17th. That fact is not in dispute. She has admitted firing the shot that murdered John Snyder. The sole issue before you today is her mental state at the time of the offense. And it is up to you to decide whether the defendant is Guilty as charged or Not Guilty Due to Reason of Insanity. I would like to review the facts of the case so that you might consider the implications of your decision.

On the day of the shooting Betty Snyder purchased the 38-calibre pistol that was used to murder her husband. You have heard her testify that she bought the gun for the sole purpose of killing herself, so overcome was she by her husband's admittance of infidelity and threat to leave her. Are we to believe her? When the clerk who sold her the gun that day was asked, under oath, his impressions of Mrs. Snyder's behavior, he indicated that she appeared calm and collected. You have also heard the testimony of Monica Sellers, the victim's secretary, who witnessed the entire episode. By her account, Mrs. Snyder entered the home, went into the bedroom where John Snyder was packing, and after a few moments a shot rang out and John Snyder fell dead. Monica Sellers told you that Betty Snyder was very calm. That she called the ambulance and then walked coolly to her car and drove herself to the nearest police station and surrendered herself. Ladies and gentlemen, these were not the wild, impulsive behaviors of a woman under the influence of a mental defect. Rather, they were the carefully planned actions of a cold-blooded killer.

I suggest to you that, with purpose, conviction, and full knowledge of the nature of her actions, Betty Snyder deliberately fired the shot with every intention of killing her husband. For this, ladies and gentlemen, she must be punished with the full strength of the law.

Let us examine the defense points. Now the entire defense argument rests on Mrs. Snyder's history of mental illness. This defense of insanity carries with it the implication that the death of John Snyder somehow falls within the category of justifiable homicide. Ladies and gentlemen, this is an outrageous and morally insulting notion.

Mrs. Snyder's marital circumstances, while unfortunate, are not unique in our times. There is no reason to assume that Betty Snyder was more distressed than other women who have found themselves in similar circumstances and have, somehow, managed to restrain themselves, seeking more appropriate solutions to their marital problems. As you have heard, Mrs. Snyder does have a history of treatment for mental problems, however, at the time of the offense she was being treated on an outpatient basis and was holding down a full-time job, as well as running a household and taking part in community activities. You heard her employer state that, on the whole, she was a responsible and conscientious worker. Are those the actions of an insane woman, as the defense would have you believe?

To refresh your memories, let me have the court stenographer read the cross-examination of Dr. Jones, who testified as to Mrs. Snyder's mental state on the day of the shooting;

PROSECUTING ATTORNEY: Doctor, would you say the defendant would

not have committed the crime in question if she had not been under the influence of a mental condition?

WITNESS: Well, that's not easy to say, put that way. All I can say is that her condition did affect her capacity to control her conduct.

PROSECUTION ATTORNEY: Then, doctor, you cannot definitely say that the crime would not have occurred if it had not been for the defendant's mental defect?

WITNESS: Of course not. Murders do happen; even a mentally healthy woman could commit murder [Interruption]

JUDGE: Doctor, let me repeat the question. Would you say that the defendant's criminal action on the night of April 17th, was a product, that is, a direct consequence of her mental defect?

WITNESS: Your Honor, concerning the defendant's behavior on that particular night, well I'm afraid that I just couldn't testify to that. As I said before, however, from what I've observed of the symptoms of the defendant's illness I would say her actions were certainly influenced by her mental condition.

Ladies and gentlemen, you've heard the testimony. The defendant murdered her husband. I say to you that she is feigning mental illness in order to escape responsibility for her crime. She has learned to depend on her emotional disorder to extricate herself from difficult situations; at home, at work, and now, when she is facing criminal charges for a heinous offense.

This community has been deprived of the contribution of a prominent and influential member. The defense would have you believe that this

loss is due to an understandable loss of control on the part of the defendant brought on by her mental illness. The defense would also have you believe that this behavior is so understandable and only momentary, that Betty Snyder should not be punished severely. The state, however, experiences considerable difficulty understanding Betty Snyder's actions, questions the extent of such mental impairment as has been alluded to, and further wonders if a woman who is capable of such absolute disregard for normal human restraints should be quickly reinstated in our community with an "understanding" pat on the back and some quickie form of psychiatric treatment. We contend, ladies and gentlemen, that regardless of Betty Snyder's former law-abiding history, she has engaged in a criminal act and can now only be regarded as a criminal.

This woman has demonstrated a capacity for violence which cannot be ignored, cannot be attributed to vague references of insanity, and certainly should not be reinforced. And it is imperative that you, as representatives of our social justice system, reaffirm the principles inherent to that system and return a Guilty verdict.

In good conscience, I can only ask that you sentence her as severely as the law allows for this offense.

CASE C: DEFENSE ATTORNEY:

Ladies and gentlemen of the jury, allow me some time to summarize this case from the defendant's point of view. Mrs. Betty Snyder, a 27 year-old woman employed as an accountant, is accused of murdering her husband, John, on the evening of April 17, 1984, by shooting him with the 38-calibre pistol she had purchased earlier that day. Mrs. Snyder does not deny firing the fatal shot; that fact is not in contention today. She has entered a plea of Not Guilty Due to Reason of Insanity. Betty Snyder's experiences are not that difficult to understand, contrary to what the prosecuting attorney might allege.

Let's review the facts of this case for a moment. On the morning of the shooting the defendant's husband had informed her that he had been having an affair with his secretary. That he had, in fact, fallen in love with her and wanted a divorce from Mrs. Snyder so that he could be free to remarry. There followed a loud and emotionally-charged argument which ended with Mr. Snyder storming out of the house. Betty Snyder was so upset that she called her place of employment and told them she would not be at work that day. As the day wore on Mrs. Snyder realized that she was becoming more and more out of control. Tearful, and grappling with despair and rage - she attempted to dismiss her husband's betrayal from her mind. But she could not calm herself. Subsequently, she drove to a local gunshop and purchased a 38-calibre pistol, telling the clerk that she needed it for protection. When she returned with the gun she found that her husband was inside packing a suitcase. Seated on the sofa was his secretary, apparently waiting for him to finish packing.

Mrs. Snyder, with the gun in her hand, entered the bedroom and she and her husband began to argue. She begged him not to leave her, but he kept repeating that he no longer loved her and only wanted to be rid of her. She has testified that she became so enraged and overcome with emotion that, somehow, the gun discharged, fatally wounding Mr. Snyder.

Now let me stop here and review Betty Snyder's mental state for you. You have heard the testimony of Dr. Harding, who examined the defendant following her arrest. He indicated that she was extremely agitated, depressed, and exhibiting other signs of temporary emotional dysfunction.

Just to refresh your memories, I'd like to have the stenographer read the testimony of Dr. Osmond, another psychiatrist who examined Mrs. Snyder following the shooting.

DEFENSE ATTORNEY: Doctor, I direct your attention to the fact that there is filed in this case a report which is signed by Dr. Harding, who is the Director of the City Mental Health Clinic, dated as of May 27, 1984, and that report is made in response to a direction of this court. In the report made to this court, Dr. Harding states: We conclude that Betty Snyder is suffering from a temporary mental illness, and that the crime with which she is charged was the product of this mental defect. Now, Dr. Osmond, when you examined the defendant did you come to the same conclusion that the offense that is complained of here was the product of the defendant's disease?

WITNESS: It seems to me that the term "product" of a disease as the term is conventionally used, is not quite applicable here; in

the sense that the defendant's behavior is really almost a symptom of an underlying illness; in other words, the behavior is so closely connected with the illness that one cannot think of it as being a result of the illness, but as a manifestation of an irresistible impulse. I can definitely say this - her level of extreme stress did lower somewhat Mrs. Snyder's capacity to control her conduct.

You've heard the expert testimony, ladies and gentlemen, Mrs. Snyder's behavior was the result of temporary insanity. Lastly, you heard the defendant herself account her mental state on the day of the shooting. She testified, under oath, that her thinking was unclear, that she couldn't concentrate, and was feeling great despair and rage about her husband's intentions. She has assured the court that she purchased a gun that day for the sole purpose of killing herself and putting an end to her torment.

Now the prosecution may contend that premeditation was involved in this tragic act, but I assure you, ladies and gentlemen of the jury, Mrs. Snyder had no such plan in mind. The shooting was a direct result of an impulse so powerful that she could not control herself, and was in fact, suffering from temporary insanity. While the prosecution might argue that the defendant was a cold, calculating, jealous woman who only shot her husband in a fit of rage because he was leaving her for another woman, you know, after hearing all the testimony, that this was not what happened. Under extreme burdens of stress, otherwise mentally normal people are driven to excessive behavior. It could happen to anyone. You have witnessed Mrs. Snyder's remorse and extreme anguish over the events preceding the trial. She truly loved her husband, but, because of her mental disease, was unable to control

her behavior. She is not a murderess, this is a woman suffering from an illness, for which she cannot and should not be held accountable.

For the loss of control resulting in the death of John Snyder, Betty Snyder is truly repentant. But she is not guilty of murder because she was suffering from a temporary mental defect at the time of the offense. For this she should not experience further suffering. I ask that you deal with her fairly. She does not ask for approval of her actions, she asks for compassion. I ask that you judge her Not Guilty Due to Reason of Insanity and thus allow her to receive the treatment she needs and to be able to put this whole ordeal to rest. The purpose of justice will not be served by a heartless and rash sentence.

CASE C: PROSECUTION ATTORNEY:

Ladies and gentlemen of the jury, the issue before you today is not whether Betty Snyder committed murder the night of April 17th. That fact is not in dispute. She has admitted firing the shot that murdered John Snyder. The sole issue before you today is her mental state at the time of the offense. And it is up to you to decide whether the defendant is Guilty as charged or Not Guilty Due to Reason of Insanity. I would like to review the facts of the case so that you might consider the implications of your decision.

On the day of the shooting Betty Snyder purchased the 38-calibre pistol that was used to murder her husband. You have heard her testify that she bought the gun for the sole purpose of killing herself, so overcome was she by her husband's admittance of infidelity and threat to leave her. Are we to believe her? When the clerk who sold her the gun that day was asked, under oath, his impressions of Mrs. Snyder's behavior, he indicated that she appeared calm and collected. You have also heard the testimony of Monica Sellers, the victim's secretary, who witnessed the entire episode. By her account, Mrs. Snyder entered the home, went into the bedroom where John Snyder was packing, and after a few moments a shot rang out and John Snyder fell dead. Monica Sellers told you that Betty Snyder was very calm. That she called the ambulance and then walked coolly to her car and drove herself to the nearest police station and surrendered herself. Ladies and gentlemen, these were not the wild, impulsive behaviors of a woman under the influence of temporary insanity. Rather, they were the carefully planned actions of a cold-blooded killer.

I suggest to you that, with purpose, conviction, and full knowledge of the nature of her actions, Betty Snyder deliberately fired the shot with every intention of killing her husband. For this, ladies and gentlemen of the jury, she must be punished with the full strength of the law.

Let us examine the defense points. Now the entire defense argument rests on Mrs. Snyder's alleged temporary state of insanity. This defense of temporary insanity carries with it the implication that the death of John Snyder somehow falls within the category of justifiable homicide. Ladies and gentlemen, this is an outrageous and morally insulting notion.

Mrs. Snyder's marital circumstances, while unfortunate, are not unique in our times. There is no reason to assume that Betty Snyder was more distressed than other women who have found themselves in similar circumstances and have, somehow, managed to restrain themselves, seeking more appropriate solutions to their marital problems. Mrs. Snyder has no previous history of mental impairment. You have heard her employer testify that she was a conscientious and responsible employee. Mrs. Snyder was also running a household and taking part in community activities. Are those the actions of a woman driven to murder by temporary insanity, as the defense would have you believe?

To refresh your memories, let me have the court stenographer read the cross-examination of Dr. Jones, who testified as to Mrs. Snyder's mental state on the day of the shooting:

PROSECUTING ATTORNEY: Doctor, would you say that the defendant

would not have committed the crime in question if she had not been under the influence of a temporary mental condition?

WITNESS: Well, that's not easy to say, put that way. All I can say is that her condition did affect her capacity to control her conduct.

PROSECUTION ATTORNEY: Then, doctor, you cannot definitely say that the crime would not have occurred if it had not been for the defendant's mental defect?

WITNESS: Of course not. Murders do happen; a mentally healthy woman could commit murder. [Interruption]

JUDGE: Doctor, let me repeat the question. Would you say that the defendant's criminal action on the night of April 17th, at the moment she fired the gun, was a product, that is, a direct consequence of a mental defect?

WITNESS: Your Honor, concerning the defendant's behavior on that particular night, well I'm afraid that I just couldn't testify to that. As I said before, however, from what I've observed of the symptoms of the defendant's illness I would say her actions were certainly influenced by her mental condition.

Ladies and gentlemen, you've heard the testimony. The defendant murdered her husband. I say to you that she is feigning temporary mental illness in order to escape responsibility for her crime. We cannot allow an excuse of emotional disorder to extricate a woman who is facing criminal charges for such a heinous offense.

This community has been deprived of the contribution of a prominent and influential member. The defense would have you believe that this

loss is due to an understandable loss of control on the part of the defendant brought on by her mental illness. The defense would also have you believe that this behavior is so understandable and only momentary, that Betty Snyder should not be punished severely for one mistake. The state, however, experiences considerable difficulty understanding Betty Snyder's actions, questions the extent or even the presence of a mental impairment, and further wonders if a woman who is capable of such absolute disregard for normal human restraints should be quickly reinstated in our community with an "understanding" pat on the back and some quickie form of psychiatric treatment.

We contend, ladies and gentlemen, that regardless of Betty Snyder's law-abiding history, she has engaged in a criminal act and can now only be regarded as a criminal.

This woman has demonstrated a capacity for violence which cannot be ignored, cannot be attributed to vague references of insanity, and certainly should not be reinforced. And it is imperative that you, as representatives of our social justice system, reaffirm the principles inherent to that system and return a Guilty verdict.

In good conscience, I can only ask that you sentence her as severely as the law allows for this offense.

APPENDIX G - JUDGE'S INSTRUCTIONS

Ladies and gentlemen, you have heard an accounting of the case of Betty Snyder, and the arguments of both attorneys.

The law in this jurisdiction states that those who have of their own free will and with evil intent committed acts which violate the law, shall be criminally responsible for those acts; but, where such acts stem from, and are the product of, a mental disease or defect, there is no legal responsibility on the part of the defendant. The law does not say that every person who suffers from a diseased or defective mental condition is excused from the legal consequences of any unlawful act he may commit. Only if the act was the product of a mental disease or defect can the accused be found not guilty on the grounds of insanity.

It is the jury's function to determine from all the evidence, including the expert testimony, not only whether the defendant suffered from an abnormal mental condition at the time the crime was committed, but also whether the criminal act was the product of mental abnormality.

Bear in mind that as jurors you are not bound to accept the testimony of expert witnesses. You should certainly consider carefully their qualifications, their observations of the defendant, and all of the factors they offered in their testimony. Then you are to give to their testimony as experts such weight as in your judgment it is fairly entitled to receive with full recognition of the fact that while you shouldn't arbitrarily disregard the testimony of any expert witness, yet, if you are satisfied that you don't accept the testimony of the expert witnesses, you are not bound to do so.

If, in your judgment, the defendant is guilty as charged, meaning she was not, in your opinion, suffering from an abnormal mental condition at the time of the murder, then you must find her guilty and recommend a prison sentence of from 1 to 99 years.

If, in your judgment, the defendant is not guilty due to reason of insanity, then she is presumed by law to be insane, and under the law of this jurisdiction the court must order her confined to a hospital and offered appropriate treatment for her condition, where she will remain unless and until it is determined by the authorities of that facility that she is of sound mind and her condition has been successfully treated, at which time she will be released.

Please indicate your decision by checking one of the following:

GUILTY _____

NOT GUILTY DUE TO
REASON OF INSANITY _____

If you found Mrs. Snyder guilty, please indicate your recommended sentence (from 1 to 99 years): _____

APPENDIX H

Post-Deliberation Questionnaire

Please answer the following questions by circling the designation that best applies - with the number 1 indicating the least difficult, certain, dangerous, etc., to the number 4, indicating the most difficult, certain, personally responsible, etc.

- | | Least | | | Most |
|---|-------|---|---|------|
| (1) How difficult was it for you to decide on the verdict? | 1 | 2 | 3 | 4 |
| (2) How certain are you of the verdict? | 1 | 2 | 3 | 4 |
| (3) What was the extent of sympathy you felt for the defendant? | 1 | 2 | 3 | 4 |
| (4) How dangerous do you think the defendant is to society? | 1 | 2 | 3 | 4 |
| (5) How much control do you think the defendant had over her behavior? | 1 | 2 | 3 | 4 |
| (6) To what extent is the defendant personally responsible for her crime? | 1 | 2 | 3 | 4 |
-
- A. Do you believe that the plea of NGRI (Not Guilty Due to Reason of Insanity) is overused in our courts? Yes _____ No _____
- *B. Should courts accept Premenstrual Syndrome (a hormonally-related disorder that can cause temporary disability in some women) as a medical condition that produces violent behavior in women? Yes _____ No _____
- *C. If yes, should women with PMS be relieved of criminal responsibility and be given lighter penal sentences? Yes _____ No _____
- *D. If no, why? (Check as many as you agree with.)
- _____ a. There is insufficient medical evidence to prove that PMS causes violent behavior.
 - _____ b. Mental instability should not be used to excuse criminal behavior.
 - _____ c. Women and lawyers will abuse the principle.
 - _____ d. It will prevent MD's and women from treating PMS as a serious medical problem.
 - _____ e. The use of PMS as a legal defense is a hoax.
- *E. Brain tumors, diabetes and temporal lobe epilepsy produce hormonal changes that induce rage and are now used in some courts to excuse criminal actions. Should Premenstrual Syndrome be viewed the same? Yes _____ No _____

Please use the space below to report any comments you may have concerning this investigation.

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VITA

Marjorie Carole Donohoe was born and educated in Boston, Massachusetts. She earned a B.A. in Psychology at the University of Massachusetts, graduating magna cum laude. She is currently a candidate for the Ph.D. in Clinical Psychology at Louisiana State University, having completed an M.A. in 1983. Following a clinical internship at Fairfield Hills Hospital in Newtown, Connecticut, she is currently assigned to the Trial Competency Program at Atascadero State Hospital, Atascadero, California.

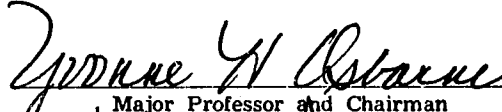
DOCTORAL EXAMINATION AND DISSERTATION REPORT

Candidate: Marjorie C. Donohoe

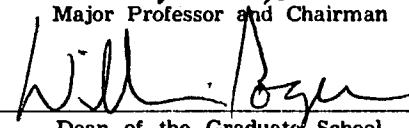
Major Field: Psychology

Title of Dissertation: Jurors' Decisions in a Simulated Trial of the PMS Defense:
Background Characteristics and Attitudes Toward Menstruation

Approved:

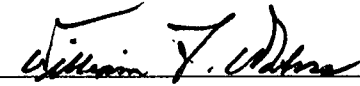


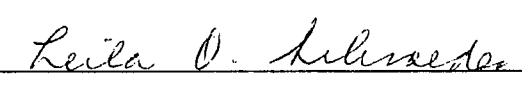
Major Professor and Chairman

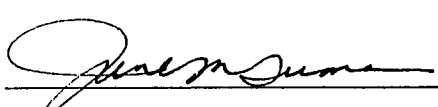


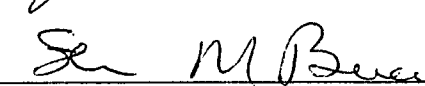
Dean of the Graduate School

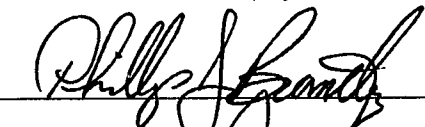
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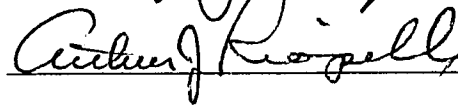












Date of Examination:

4-15-86